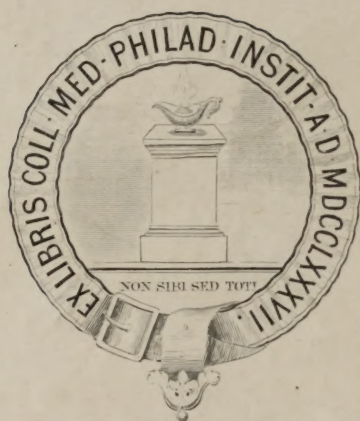


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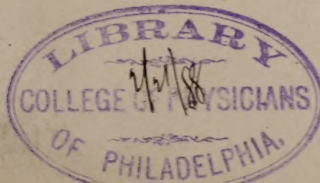
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# ST. LOUIS COURIER OF MEDICINE.

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## ORIGINAL ARTICLES.

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### PLACENTA PREVIA, WITH CASES.

BY G. A. MOSES, M. D.

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*Read before the St. Louis Obstetrical and Gynecological Society, April 21, '87.*

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HAVING almost completed this paper, I recalled the fact that in 1879 our associate, Dr. Maughs, had presented an exhaustive essay on the subject, and, except that I had a few cases, one of special interest, to report, and the paper had been announced, I should have selected other matter. As it is, we have in such cases so much that in individual experience is novel in possibilities, always demanding promptitude of action and readiness of resource, that we cannot, I believe, too frequently give our attention to the subject and compare our experience while we revive our knowledge of the methods to be adopted in the varying circumstances which may suddenly arise.

Mrs. A., æt. about 24 years, near the completion of term in her first pregnancy, was aroused at 4 A. M. by a sudden gush of blood from the vagina. Her physician was immediately summoned. At his arrival no more bleeding had occurred and no pain. Upon examination the attendant discovered a placental mass covering the os. I was called and arriving about 6:30 found a healthy-looking, robust woman, with good pulse. Examining, I found the cervix large and soft, os patulous, admit

ting easily the index finger; placenta felt at all points, and on every side the soft boggy feel accompanying this condition; by palpation, the fetal position was determined to be the first vertex. Bleeding was trifling, but recurred again; the placenta was now separated by the finger as far as could be reached, and a Barnes' bag introduced; in about an hour this was expelled and hemorrhage renewed. The os was now well dilated and yielding, slight pains set in and delivery was determined upon. The left hand was passed beyond placenta, the membranes ruptured and version skilfully completed by the attendant physician. In the hope of saving the child, and, as hemorrhage was profuse, extraction was expedited. This was followed by tremendous gushes of blood; the placenta partially adherent was quickly detached; subcutaneous injections of ergot were administered, while the fundus was grasped and compressed: contractions were imperfect and hemorrhage continuous, chiefly from placental site, but also from the cervix which was injured by delivery. Intra-uterine injections of hot carbolized water were unavailing, and were followed by solution of perchloride of iron, which was also applied nearly pure to the cervix. While this checked the flow, the woman had become pulseless, blind, and respiring only with sighs. The subcutaneous injection of ether and brandy had but little apparent effect; the patient seemed to be dying, and we decided to transfuse, for which we had prepared immediately after the intra-uterine injections. For this purpose we used warm saline distilled water, 22 grs. sodium chloride to the pint. The instruments consisted of the cannula, from the small exploring trocar of the pocket case, a piece of rubber tube being attached to the end for connection with the syringe, which we selected of glass, so that the contents could be seen.

Owing to the adipose of the arm and the unusually small size of the vein, it was with some difficulty found and was just large enough to receive the cannula. Aveling's apparatus, I think, would have been useless had we had one at hand. However we managed to inject very carefully about ten or twelve ounces of the salt water, with the satisfaction of feeling the pulse return and seeing respiration more regularly established; as soon as the heart began to respond one-eighth grain of digi-



talín was injected subcutaneously. Brandy was administered as soon as swallowing was possible. Some oozing from the cervix being repeated, that part was again freely swabbed with the iron solution. The patient gradually and steadily convalesced, and is now well, excepting not yet as well supplied with blood as she requires, being easily fatigued and somewhat pale.

The placenta, as is common in this class of cases, was large, covering a greater area than normally.

The child was well developed, and seemed to be very nearly arrived at full term of pregnancy.

The fortunate infrequency of this misimplantation of placenta permits one in private practice such rare opportunities, that personal experience of such cases can be but an imperfect guide to action, and for the reason that clinical experience of many may be heard. I report my observations. My experience embraces but five cases.

No 1. Central implantation, first hemorrhage at seventh month, a gush which did not recur for several days. Rest in bed and sedatives were relied on in the hope that the fetus might become more viable and labor set in normally. I was called away from the city before this event, and my father attended, delivering with forceps a premature still-born child. It was a first pregnancy.

This woman I attended in a subsequent labor—normal, and she has had two since.

No. 2. In consultation. Implantation covered os completely, but could not be called central, as the membranes could be felt to the right side; seventh month; breech presenting; hemorrhage severe; the membranes were ruptured, the breech brought down and delivery effected without trouble; the fetus dead; mother recovered without difficulty.

No. 3. Fourth pregnancy. A sudden hemorrhage near close of fifth month; a marginal implantation; no pain; os patulous. In this instance I followed the advice of Barnes. Separating the placenta as high as I could reach the index finger; hemorrhage did not recur; labor came on at about the expected time; parturition was normal; child alive; some bleeding post partum but of no serious nature; that portion of placenta which

had been separated was glazed over thin. (A sort of cicatrix).

No 4. In consultation. A strong woman; multipara. When I arrived the attendant told me that bleeding had been so violent that he had already turned, but could not complete extraction. I found the woman almost pulseless, pains active, the head extended and fixed at brain. I delivered as promptly as possible with some difficulty. Injections of brandy, etc.; no post-partum bleeding. She died about twelve hours after, the attendant telling me that she never rallied.

No 5 is the case reported at the beginning of this paper.

The frequency of placenta previa, as estimated by Parvin in his recent valuable work upon obstetrics, derived from comparison of all attainable statistics, amounting to about 600,000 obstetric cases, is a little more than 1 in 1200. It is six times more frequent in multiparæ than in primiparæ.

Two of the cases which I report were first pregnancies in women who were healthy, at least had no history of uterine disease, so that here there was no known abnormal size or shape of uterine cavity and no *evident* cause of ectopic implantation.

That the ovum being frequently lodged in the inferior uterine segment (the dangerous zone of Barnes) is a common cause of abortion, as I have before stated in this society, I am satisfied, so that if pregnancy continued, the placenta would be previa. How often this does occur, we have no means of knowing. (Barnes asserts the same). The attempts to assign causes of this condition are satisfactory only in certain rare instances. One case reported was shown in autopsy to be a transversely large cavity in which the Fallopian tubes entered just above the os internum.

Dr. Boisliniere reported a case in which the woman had such unfortunate occurrences in every instance excepting one being accompanied by a transverse presentation. Here we may justly ascribe the accident to deformity of the cavity. Mueller (see Lusk) suggests that the descent of the ovum is effected by uterine contractions shortly after conception, when if abortion is averted, the ovum is arrested in the lower segment and the villi find a new attachment. Etiology is therefore varying and still unknown excepting in a few instances. Although this condi-

tion has been recognized and described since Partal in 1685, and there are numbers of accurately reported cases in the quaint English of Smellie, the ultimate cause of the hemorrhage is still debated.

Jacquemier holds, and is endorsed by Cazeaux, that as during the latter portion of pregnancy the lower segment of the uterus is more rapidly developed, while the placenta is almost completely developed, the growth is unequal and the placental cotyledons are separated by this disproportioned growth, occasionally bleeding. Barnes and others agree that the first detachment of the placenta arises from an excess of growth in itself, over that of the lower region of the uterus to which it is attached. Spiegelberg with others attributes the hemorrhage to uterine contractions causing partial separation.

In discussing the elaborate and able paper presented by Dr. Maughs in 1879, Dr. Ford expressed the opinion that the bleeding was due to expansion of the inferior segment by hydrostatic pressure of the superimposed amniotic fluid.

While this theory might hold in central implantations or even partial at labor, I think it fails in cases of marginal or lateral.

Moreover, the hemorrhages that occur before labor are not due to dilatation. It is a noticeable fact that dilatation is often slow and uterine pains of contraction deficient, evidently then not factors in causation of hemorrhage in the seventh or eighth month without labor.

The bleeding that occurs *at time of labor* is due to superimposed pressure and dilatation of the internal os, and is therefore termed by Rigby unavoidable.

I am disposed to agree with the French authorities and Barnes. The placenta probably attains its complete growth by the seventh month. After this it may increase in thickness, but little in circumference. My reasons for this opinion, aside from the observations of authorities, is that in a study of all placentas which I have seen, the seventh month organ seems to be as completely developed as those at nine months, averaging quite as much in area, so that often the seventh month placental growth is certainly diminished, while uterine development continues and is greatly augmented in the lower segment.



I doubt the effect of the painless contractions in separating placental attachments, or else why should we not have the same result when attached in other sites?

Whatever may be the causes of the hemorrhages, it is the practical action of the accoucheur in the face of this terrible and terrifying condition that mainly interests us, and favorable results will be largely due to the coolness and readiness of the attendant, provided the hemorrhage has not already so depleted the patient before aid is summoned, as to render the prognosis hopeless.

It is a well established rule that safety is only secured by the emptying of the uterus; and while in moderate hemorrhages in the fifth, sixth and seventh months, when no signs of labor are exhibited, we may, under absence of exact knowledge as to the placental insertion, resort to rest, cool, acidulated drinks, opium enemata and perhaps in plethoric women to venesection (?) we must always have vividly before us the constant liability to sudden and violent recurrence of the danger. A stillicidium is quite as perilous, if continued, as sudden gushes. Therefore we dare not trust very long to any of the palliative measures, as recommended, even though endorsed by as high authorities as Dubois and Cazeaux.

If the pregnancy has advanced to a period at which the child is viable, the sooner parturition can be accomplished the better.

If the os be sufficiently dilated for digital exploration, and we find the placental edge, showing a partial or lateral insertion, the plan of Barnes, which I adopted in one case, is advisable, and will often prove satisfactory.

If the cervix is undilated and hemorrhage active or recurring, I believe the tampon should be at once resorted to. If, after removal (which, if the material has been aseptically prepared, need not be for twenty-four hours, if no discomfort or other symptoms supervene), the bleeding is repeated, the cervix should be tented with sponge or tupelo and dilatation accomplished: then positive knowledge as to the state of affairs may be arrived at. If the implantation be complete, separation as far as the finger will reach, Barnes' bags or, in their absence, renewed tamponing, both with the object of arresting hemorrhage and inciting labor should be resorted to.

Ergot, which is advised at this stage, should, I believe, be withheld until complete dilatability has been secured. It will often excite the circular fibres of the internal os to contraction and so obstruct further action. To secure uterine contractions at this stage, as well as for other therapeutic results, I prefer large doses of quinine (20 grs.), and we may also find efficient aid in the use of the faradic current. If labor is established, the tampon will be forced outward or the Barnes' bag will be expelled: the hand may then be safely introduced and the membranes ruptured at the nearest point. If pain is active and the head presenting favorably, we may safely await the efforts of nature, if the bleeding is arrested by the pressure and the fetal heart is strong, otherwise the forceps offer the best mode of safe and rapid delivery.

If, however, the presentation be unfavorable or hemorrhage continues, as in the first case reported, podalic version is, I believe, the proper resource, extraction being hastened, if the child still lives and pains are active. If, however, the uterus is inert, hasty extraction only adds danger by removing the efficient plug to the cervix, and incurs increased liability, always present in such cases, of post partum hemorrhage. At this time ergot administered subcutaneously will be of decided advantage. The stomach should never be trusted. Stimulants also by the same method should be assiduously administered.

Rupture of the membranes before active pains are established while it may occasionally incite action and increase hemostatic pressure, is unreliable and likely to interfere seriously with other measures which may be indicated, while the relaxed uterus may be filled with blood.

The occasional happy efforts of nature, such as complete detachment and expulsion of placenta followed by arrest of hemorrhage and safe delivery even many hours after placental expulsion, instigated Simpson to adopt the plan of placental extraction, while Puzos advocated the evacuation of the liquor amnii by puncture through the placenta. Experiments have demonstrated the impropriety of such methods, and I believe they are no longer advised by any. In case of perilous prostration from loss of blood before aid has arrived, when delivery

would be almost certainly fatal, the plan suggested by Dr. Maughs of injecting into the cervix a styptic, such as iron or alum; and the styptic tampon is well worthy of consideration, the objections being outweighed by the temporary advantage gained.

I will only refer to immediate after-treatment so far as to caution against the use of corrosive sublimate as the antiseptic douche, as soon as labor is complete the uterus and vagina should be washed out with either Labarraque solution, permanganate of potash or a weak carbolyzed solution—never the sublimate as we incur great danger of poisoning by absorption of the mineral through the lacerated and contused parts if any of the preparation should remain in the cavity.

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## THE FLEXIBILITY OF THE METACARPO- PHALANGEAL JOINT OF THE THUMB.

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BY FRANK R. FRY, A. M., M. D., *Demonstrator of Anatomy in the St. Louis Medical College.*

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*Read before the St. Louis Medico-Chirurgical Society, May 3, 1887.*

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SOME eighteen months ago, my friend, Dr. Will. N. Beggs, at present assistant physician at the St. Louis Female Hospital, while at my office noticed the flexibility of my thumb in manipulating an object of interest to us; and called attention to the difference in this respect between his own thumb and mine. His could be flexed at the metacarpo-phalangeal joint through an angle of not more than  $45^{\circ}$ , making when flexed to the greatest possible extent an angle of about  $135^{\circ}$  with the shaft of the metacarpal bone. Mine could be flexed through an angle of  $90^{\circ}$ . I thought it remarkable that there should be so little flexion of the digit at this joint in a hand otherwise as supple as his. On further investigation I found it a frequent occurrence.

The accompanying tables give the results of the examinations of the hands of 417 individuals, made by Dr. W. N. Beggs at the St. Louis Female Hospital, by Dr. F. Neuhoﬀ, assistant

physician at the St. Louis City Hospital, and by myself at random. In tabulating, the hands were separated into two classes, those in which the thumb could be passively flexed with comfort to the individual at the metacarpo-phalangeal joint through an arc of only about  $45^{\circ}$  or less, and those in which the amount of flexion was  $90^{\circ}$ , or nearly so. In rating *the flexibility of the other metacarpo-phalangeal joints* the four fingers were passively flexed together; if the general angle thus obtained was less than  $90^{\circ}$  it was rated good; if  $90^{\circ}$ , medium; if more than  $90^{\circ}$ , bad. The table shows a tolerably constant proportion between the flexibility of the first and the other metacarpo-phalangeal joints, but not an invariable one.

TABLE No. 1.—CASES IN WHICH THE ANGLE OF FLEXION OF THE MET. CARP. PHAL. JOINT OF THE THUMB WAS ABOUT  $90^{\circ}$ .

Males.	Females	Age.	Hard Labor.	Light manual labor.	No regular manual occupation.	Colored.	Flexibility of the other metacarpo-phal. joints.		
							Good.	Medium.	Bad.
119	135	1 to 75 yrs. average 28 yrs.	88	96	70	30	172	81	1

CASES IN WHICH THE ANGLE OF FLEXION OF THE MET. CARP. PHAL. JOINT OF THE THUMB WAS ABOUT  $45^{\circ}$ .

Males.	Females	Age.	Hard Labor.	Light manual labor.	No regular manual occupation.	Colored.	Flexibility of the other metacarpo-phal. joints.		
							Good.	Medium.	Bad.
99	64	1 to 82 yrs. average 34 yrs.	66	57	40	3	57	100	6

Total 417 cases. In 60.91+ % ang. =  $90^{\circ}$ . In 39.08+ % ang. =  $45^{\circ}$ .

The examinations were made by three of us, the great majority of them by Drs. Beggs and Neuhoff, without any previous conference, the gentlemen who kindly assisted me simply going to work with brief instructions. Necessarily there was some differ-



ence in our methods, which if they had been more uniform would possibly have made the general result somewhat different. The result obtained, however, demonstrates sufficiently well the one anatomical fact that I want to call attention to, namely, that in a considerable proportion of hands the thumbs are of the stiff variety. I believe the two kinds, stiff and flexible, are to be found distributed without any special reference to the age, sex, social condition, or color of individuals. Table No. 1 does not make this statement evident, in fact it may seem in a measure to contradict it. Table No. 2, which shows the distribution according to age, tends to confirm it. This table was made from the results of the examinations of Drs. Beggs and Neuhoff only. This explains the fact that the majority of cases of both kinds are recorded between the ages of 20 and 60 years, the institutions in which their observations were made containing comparatively few children or very old patients.

TABLE No. 2.—SHOWING THE DISTRIBUTION ACCORDING TO AGES.

	90°	45°		90°	45°
1 year or less .....	17	2	36 to 40 years.....	24	17
1 to 5 years.....	8	1	41 to 45 years.....	18	17
6 to 10 years.....	2	1	36 to 50 years.....	17	13
11 to 15 years.....	3	2	51 to 55 years.....	16	8
16 to 20 years.....	18	8	56 to 60 years.....	12	6
21 to 25 years.....	29	15	61 to 65 years.....	4	9
26 to 30 years.....	29	12	66 to 70 years.....	3	1
31 to 35 years.....	17	19	Over 70 years.....	8	4

If it be remembered that about 61 per cent of thumbs are of the flexible and 39 per cent of the stiff kind, it will be seen from this table that the two kinds are proportionately tolerably evenly distributed among the predominating ages. I have made many examinations of which I have kept no record, and am satisfied that any one making as many at random will find my statement to be true. Even in infants and young children decided differences in the flexibility of the thumb are to be found.

Of what practical benefit to science and society these observations may be I am unprepared to say. Sir Charles Bell says: "On the length, strength, free lateral motion and mobility of the

thumb depends the power of the human hand." In the light of this statement, the truth of which is apparent, the subject would seem worth our notice. In these days of manual-training schools, wherein it is sought to impart to children of all social conditions a useful manual skill as well as practical mechanical knowledge, it is not impossible that some attention to the anatomy and physiology of the hand might help to explain the varying capabilities of pupils, or even become to some extent the basis of selecting for some of the various pupils more suitable occupations for their special attention. Might not a study of these and other facts in the same line assist, in some measure, to scientifically determine the probable proficiency of students of the different kinds of musical instruments and type-writers, and various other instruments and machines, the successful use of which requires much cleverness of manipulation? I believe it would be an interesting study to examine the hands of a large number of artisans, musicians, etc., noting what the several occupations to be investigated required of the hands, and then noting the relative proficiency with regard to the different kinds of hands. I have been content though to note an anatomical fact only, leaving to some more ingenious person an investigation of its physiological features, if it seem worth while.

2614 Locust street.

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## NEURO-THERAPEUTICS.

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BY B. F. WILSON, M. D., SALISBURY, MO.

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[Read before the *Missouri State Medical Association*, May, 1887.]

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THE human form is encased in a pad or sheet of sensory nervous protoplasm, so extensive and general that even the point of the finest needle fails to find an interspace free from tactile sensibility. The nervous system gives to man an *extrinsic* and an *intrinsic* endowment—the former places him in harmony with the surrounding media in which he “lives, moves and has his being;” the latter places in his hands the sceptre of

dominion over all created things. The cerebral cortex, the organ and laboratory of the mind, is the grand central office of human intelligence from whence issue the mandates of the will and in which is mirrored forth to consciousness all the impressions transmitted from without through the media of the senses—it is at once “the dome of thought, the palace of the soul.” Neuro-therapeutics is synonymous with general medicine. It is through the agency of the nervous system that all the vital processes are dominated, and through its instrumentality abnormal deviations are corrected. Hence, the claim put forth that certain therapeutic agents act upon the nervous system alone independently of the economy at large, is misleading and not sustained by physiological data. “The tone of any given vascular area may be altered positively in the direction of augmentation or constriction and negatively in the way of inhibition or dilation quite independently of what is going on in other vascular areas.” This change may be brought about by (1) stimuli applied to the spot itself and acting either directly or indirectly by reflex action through the general nervous system, or by stimuli applied to some other sentient surface acting also by reflex action through the central nervous system. (2). By stimuli, chemical or medicinal, and blood stimuli acting directly on the central nervous system. Thus, of the two therapeutical modes of affecting the system, one acts upon the peripheral surfaces by direct or indirect action. In this physiological fact we have a scientific interpretation of the *modus operandi* of blisters and counter-irritants, etc. A blister may be applied to the peccant spot as in pleuritis, gastritis, etc., and it may act directly on the local mechanism, thus affording immunity from a rising inflammation; or, if the morbid process has already eventuated in an organic lesion, then relief or restoration can only take place through reflex action. A blister or counter-irritant excites the reflex activities in fulfilment of the well-known physiological principle that the whole organism cannot functionate equally well simultaneously, that some must rest and be held in abeyance to reinforce the reigning activities, *e. g.*, digestion, etc. So, when a vital organ is beleaguered by disease, there is a partial arrest or suspension of other functional activities, and the



whole vital energy is invoked by the nervous system to succor the morbid tissue or part, and if this aid be rendered opportunely, a restoration of vital equilibrium follows without resultant organic lesions. In illustration of counter-irritation or the action of blisters we may instance a few familiar examples. Thus irritation of the margin of the anus causes an increased action of the sphincter ani muscles. Genital irritation, as in phymosis, may cause convulsions; or a mal-poised uterus may dethrone a woman's intellect. The ear may be made to blush or to pale by the application of heat or cold. The principle of counter-irritation holds good whether it be applied to the periphery or along the track of the nerve. Further, all vascular areas are dominated by special vasomotor nerves whose function it is to regulate by constriction and dilation the vascular areas to meet the ever varying needs of the economy. In arterial constriction there is a diminished flow of blood through the artery with increase of blood pressure leading to an increased flow into other channels which may or may not eventuate in an organic lesion.

An important physiological fact is that the rate of the cardiac impulse is in inverse ratio to the blood-pressure—a rise in the blood-pressure causing a diminution, and a fall an increase of the pulse rate. Hence, heat and cold or peripheral irritation may be very appropriately classed as neuropathic agents—the skin being the great regulative mechanism of the organism—the more blood passing through it the greater the loss of heat by conduction, radiation and evaporation; and by the application of heat externally peripheral resistance is lessened, and concomitantly a fall of blood-pressure takes place, which obviously tends to relieve the tension of the splanchnic cavities. On the other hand, the application of cold to a peripheral pad of sensory nervous protoplasm commensurate with the entire cutaneous surface cannot fail to constrict the peripheral vascular areas thus forcing upon the internal organs an undue quantity of blood, which may be attended with disastrous results. In this way it is but rational to infer that an inflammation may result from sudden and extreme atmospheric variations, an extreme high temperature relaxing the bodily surface and overfilling the

cutaneous vessels with consequent more or less emptying of the internal organs. Now, let the transition be from extreme heat to extreme cold, and the conditions are reversed so abruptly and suddenly as to preclude compensatory adjustment, and injury must almost necessarily fall upon some internal organ—thus a pleuritis, hepatitis, etc., may result in accordance with well-known physiological principles. The second method of affecting the system by medication is by directly acting on the central nervous system through the medium of the blood, and at the outset the statement is challenged that the therapeutic action of a medicine is indetical in the too widely differing conditions of disease and health.

Quinine will not reduce the temperature in health, but does in diseased conditions. Alcohol in many pathological conditions is life itself as clinically demonstrated in conservation of tissue and in regulative adjustment of the vital functions—but in health it is a deadly anesthetic and paralyzant. Blood-letting will relieve the vascular tension of a part and so modify the general circulation as to restore to the vasomotor mechanism its wonted control, and in this timely and judicious depletion many otherwise organic lesions are averted, but blood-letting in health is manifestly the converse of all this. Transfusion of a saline solution is of vital utility in cholera or great loss of blood in restoring the normal blood-pressure, always an indispensable factor, and thus preventing the reverse current of vital fluid from the extra-vascular tissues to the intra-vascular blood, yet transfusion in health increases the blood-pressure only during the operation. Transfusion is effective in saving life only when the loss of blood is so great that the vasomotor mechanism fails through regulative constriction to adjust the calibre of the blood-vessels to meet the requirements of a lessened quantity of blood—as death results more from loss of blood-pressure than from loss of blood itself.

Medicines act directly upon the central nervous system through the medium of the blood—thus one agent will relax and another tetanize the muscles. Other agents will produce respectively emesis, catharsis and narcosis.

REPORT OF A CASE OF BILIARY CALCULI WITH  
ABSENCE OF GALL BLADDER.

BY TINSLEY BROWN, M. D., HAMILTON, MO.

[Read before the Missouri State Medical Association, May, 1887.]

MUCH has been said during the last few years in medical literature about the treatment of gall stone. It is not my intention in this report to enter into any detailed statement, but to mention a few facts which have been published from the pen of others. Numerous cases have been reported in which the abdomen has been opened and the gall bladder cut into and stitched into the abdominal wound and a fistulous opening left for the external discharge of the bile. Langenbuch, of Berlin, reported a case which was translated and published in the *COURIER OF MEDICINE*, Vol. 9, page 142, 1883, in which the gall bladder was extirpated in July, 1882, and the patient was still alive in November of the same year, in a much improved state of health. Dr. Wm. A. Byrd read a paper before the Mississippi Valley Medical Association which was published in the *Weekly Medical Review*, Vol. 2, page 344, 1884, in which he fully discusses the subject. The main surgical relief which he offered was aspirating the gall bladder when it can be located.

Chloroform in his hands had offered the most relief. From time immemorial bilious colic has been considered a dangerous disease as well among the laity as among physicians. It attacks at all ages, but is more frequent with those in middle age, those of bilious temperament more often than any other, and females more often than males. I was called on May 19, 1882, to see Mr. G. G., aged 42, who was suffering from an attack of gall stone impaction. The attack was made manifest by severe pain, chill and persistent vomiting, and followed by extreme jaundice. The pain was relieved by the inhalation of chloroform and hypodermic injections of morphine. "The patient was confined to his bed for a week, and did not fully recover for six or eight weeks. There was a history of a previous attack, about six years before. His father died at an advanced age



from bilious colic and some sort of obstruction of the bowels. His whole family was of a bilious temperament. After the pain was relieved, his after-treatment was laxatives and alkalies, the principal remedy being phosphate of soda. The patient remained in a fair state of health for three years and a half, when he again began to have attacks of bilious colic. By washing the discharge from the bowels after one of these attacks, I found pieces of biliary calculi. All medical treatment failed to keep off his attacks for any length of time. Over-work or going past meal time without eating would bring on his paroxysms. In January of this year he started to New York on some business, going to Chicago first with some stock. He was taken sick on the way and was confined to bed a great portion of his time, while away from home, which was about three weeks. At one time he vomited material which had a fecal odor. In one week after returning home he was taken violently ill with severe pain and uncontrollable vomiting. This was followed by a temperature of  $103^{\circ}$ . I could at no time detect the gall bladder. The area of hepatic dulness was normal, and bowels constipated. He at all times when sick with this trouble had had more or less trouble in passing his urine, perhaps from the use of morphine. Morphine and chloroform relieved the pain, but still vomited. In fourteen hours he had a violent chill, requiring one or two persons to hold him in bed. After this there was much fever. Pulse 130 and irregular. In twelve hours he was apparently pulseless, and vomiting continuously. On one or two occasions the material vomited emitted a fecal odor. In forty-eight hours his pulse had become better, and vomiting less. We then entertained great hope of his recovery, but his favorable symptoms soon failed, and he died on the eighth day of his illness. Post-mortem fourteen hours after death. Much emaciation, skin and adipose tissue extremely jaundiced. The liver was found to be of normal size. Only slight signs of any recent peritonitis in the region of the common bile duct. Stomach contained some mucus, but not inflamed. No stricture of the pylorus, but a slight stricture of the duodenum existed at the entrance of the bile duct. Signs of old inflammation around the common bile duct, which was sacculated, somewhat like a

bulb blown on a glass tube, to the extent of one-half inch or more. The gall bladder was entirely absent, there being no trace of it save the sacculated place in the bile duct. The common bile duct contained four calculi weighing respectively 22, 23, 25 and 29 grains. There was complete occlusion of the duct at its orifice caused by impaction of one of the calculi. The gall bladder probably had been destroyed a number of years before, if it ever had existed, as there were no signs of it. Was this a case which could have been successfully relieved by a surgical operation? Or, in other words, were there positive symptoms enough to justify an operation, not taking in the absence of any physical sign, pointing to an over-distended gall bladder? This point was thoroughly discussed by myself and a consulting physician, and decided in the negative, although it would have been hard to have secured the consent of the patient for surgical interference. A similar case is recorded in the *Weekly Medical Review*, Vol. I, page 44, 1885, which occurred in the practice of Dr. Bogue. He expressed the opinion that if he again had a similar case he would open the duct and stitch the peritoneal surfaces of the distended bile duct together after incision, and expect to get speedy union. The editor expressed grave doubts about the propriety of such a procedure, as past experience had demonstrated that the bile must have an external exit.

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## ON THE EARLY RECOGNITION OF HIP DISEASE.

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BY A. J. STEELE, M. D., *Professor of Orthopedics in St. Louis Post-Graduate School of Medicine.*

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[Read before the *Missouri State Medical Society*, May, 1887.]

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KNOWING that formerly the mortality from hip disease was 30 per cent of all cases, and that of late it is but 5 per cent; and secondly, that marked deformity was then the rule of the cases that recovered and that now serviceable limbs are had, we realize what better understood pathology, earlier diagnosis and improved methods of treatment have accomplished in this affection.

My old preceptor used to teach that the first duty of the practitioner was diagnosis, and that if we would benefit our patients it should be made early.

As we now know how rationally to treat hip disease, excellent results, if such we would have, will turn upon the early recognition of the affection. In nine cases out of ten it is the family physician whose attention is first called to these cases; thus all the more important that he should early diagnose them, that he may at once institute the treatment himself or relegate the case to the surgeon. It shall, therefore, be my aim at this time to so plainly outline the early indications of the affection that it may be readily recognized by all.

In the pathology of hip disease there is nothing so peculiarly different from diseased processes of the joints occurring elsewhere that it should merit a special name. We might perhaps with as much propriety speak of "liver disease," of "brain disease." Still, on account of the size of the hip-joint and peculiar features of the disease, its symptoms, history, course, and special treatment required, it does merit a separate name. Thus from time immemorial it has been designated *morbus coxae*.

We have but to remember that it is a chronic inflammatory affection, originating usually in the bones, and doubtless strumous in character, peculiar to the age of childhood, rare in later life. When far advanced, readily recognized by the merest tyro in medicine, but in its incipency often difficult to diagnose; no single sign is indicative of it, but a combination of the symptoms presenting themselves makes it comparatively certain. These symptoms are as follows (not, however, in the order necessarily in which they present themselves): Lameness, pain, change in position and apparent length of the limb, loss of motion, wasting of the muscles of the limb, tenderness on motion or pressure and enlargement of or about the joint. In making the examination the patient should be undressed and examined both standing and lying; for the latter a table covered only with a blanket or quilt is best. And first of the *limp*. It is the lameness that probably first excites the attention of the mother to the child, perhaps neither severe nor constant, but more marked in the morning on arising and gradually wearing



away during the day. I cannot say that there is a limp peculiar to hip disease, because its character varies with the stage of the affection, and yet it may be that the patient favors the hip joint, *i. e.*, though the ankle moves, though the knee has motion, yet the hip is stiff. The foot is put down firmly; it does not drag as in paresis.

It is an interesting study, and I have indulged in some observation on the subject of determining the part affected by the peculiar lameness or gait of persons as seen in their walk. Each joint has a characteristic limp. Each part also. Recently I diagnosed Pott's disease in a patient seen for the first time, coming up the steps to my residence from the way he carried himself, the disease having been unsuspected by physicians previously treating him for stomach and kidney troubles respectively. The limp in hip disease is due to the patient restraining the movement of the joint on account of pain or because the joint is fixed by reflex contraction of the muscles. The lameness differs from that of partial paralysis, there is a stiffness in the motion. At first the child favors the limb; there is a certain awkwardness, the foot is not raised so high, the step is shorter; later on falls occur, and the child manifests less confidence in the affected limb. Much activity during the day increases the limp. The effort of the child is to save the limb. Thus, in the limp of early hip disease we have a sign always present, and from its peculiarity almost diagnostic.

2. Perhaps the next most important sign is the pain; this, however, varies, sometimes so slight throughout the continuance of the affection as to be misleading, and again so severe as to excite the keenest sympathy for the little sufferer.

It varies not only in different cases, but also in different stages of the affection. Early there may be a complaint of fatigue and of soreness merely, and after exercise of positive pain referable to the hip, and later on to the knee. This pain is reflex in character and liable to exacerbations. The anterior crural, sciatic and obturator nerves send twigs to the joint, and peripheral branches to the limb below, as to the knee, the inner side of the thigh and leg. This fact is interesting.

namely, that certain short branches of a nerve being irritated, pain is experienced in the long peripheral branches, and unless borne in mind will be misleading as to the seat of the trouble. I am constantly seeing mistakes of this character made by the physician and friends. In other disorders we have illustration of this same peculiarity of nerve irritation. In Pott's disease the pain is experienced in the front of the body remote from the spinal lesion; so in stone in the bladder such disquietude is experienced in the end of the penis that the patient would ever be pulling it.

Finding no difference in the contour of the two knees would help to settle the suspicion of affection of that joint. Later on a paroxysmal pain occurring at night is symptomatic of bone lesion and called the osteitic cry. The same is found in bone involvement of other large joints or of the spine.

In my experience it is of frequent occurrence that cases are brought in for knee-joint affections or rheumatism of the thigh, that prove to be hip disease. The chagrin of the family physician is often great when told of his error.

A neuralgic hereditary tendency on the part of some children may render them more sensitive, and account for their suffering more in hip disease than others who have no such idiosyncrasy.

3. Of altered positions. Very early the limb is slightly flexed, a little later abducted and rotated outwards; thus the foot is thrown in advance, or a little forward of the body.

Some carefully made experiments of injecting the synovial cavity of the hip joint with fluid, in which the line of the femur was made to take a direction forwards and outwards with rotation, would seem to indicate that when in joint disease the limb assumes such position, therefore, there must be fluid in the joint, synovial or purulent, such has been the specious reasoning of the past; but more correct pathology now shows that this position is assumed as one of greater comfort, whereby the ligaments are more thoroughly relaxed. As you now, Mr. President, sit at ease, the thighs are flexed, the knees separated, and the feet turned outwards, *i. e.*, there is flexion, abduction and rotation, naturally assumed position of greatest comfort. This position of the limb affects the character of the locomotion. In order

to get the foot to the ground the body is put forward and inclined outwards. This is accomplished through curving the lumbar spine. If the limb will not conform to the body the body must conform to the limb—like the story of Mohammed and the mountain.

The pelvis is tilted downwards on the affected side, thus producing an apparent lengthening of the limb.

4. Loss of motion in the joint. The patient cannot move his thigh except to a limited extent, and there is impairment of passive motion, a symptom of the greatest value.

The examination must be very gentle and critical. If it is roughly made, all the muscles will contract to protect the joint, and the contraction will be mistaken for rigidity from disease. The patient lying on his back the *sound* limb should be first seized and put through the motions of flexion, extension and rotation; the sound limb for two reasons: 1. To get the confidence of the patient. 2. To refresh the memory as to the possible movements of the limb. Then the suspected limb is seized and flexed to its utmost without force, then extended, and just here comes in the test so insisted upon by recent authors, the *experimentum crucis*, namely, that in extreme extension with the popliteus striking the table the lumbar spine will be flexed or bowed forward if disease is present; then as the limb is flexed the spine again will lie flat on the table. This is due to the contraction of the psoas and iliacus. With the limb flexed to an angle of 120 degrees with the trunk the thigh should be rotated, and this rotation will be limited if the joint is affected. If the rotation is unimpaired, almost to a certainty no disease exists. We may state the case axiomatically that if hip disease is present impairment or limitation of motion is certain. In these examinations do not use an anesthetic for the consequent relaxation of the muscles would nullify the test, and render naught the otherwise clear symptoms.

I can well remember the day when to diagnose a case of hip disease chloroform was given and the joint freely moved to elicit grating of the suspected eroded joint surfaces, an exceedingly harmful and unnecessary proceeding.

Tact must be used, the confidence of the little patient gotten.



Finding you are not to hurt him, he will place himself in your hands, and the delicate tests may be satisfactorily made. So often in cases brought to me for consultation the child cries and the mother apologetically says: "Dolly has become afraid of doctors." Shame! As Shakespeare has it, "use all gently."

5. I have found wasting of the limb a very constant sign, and with it also a flabbiness of the muscle.

The circumference of the two calves should be compared, and then the thighs, taking a point on each equidistant from the upper edge of the patella (the markings are best made with an aniline pencil), and thirdly, the flattening of the glutei and obliteration of the lower gluteal or natal fold.

Great emphasis was placed by the older writers on this flatness of the natis, and so we were taught, but I do not give such significance to it. While it may be due measurably to wasting of the gluteal muscles from reflex nervous irritation, it is largely affected by position of the limb, and thus becomes a secondary sign.

This wasting of the limb like the pain is due to the nervous reflex, and is quite constant.

I do not assert that wasting of the limb is never caused by other affections, for in ankle disease, infantile paralysis, flat foot and congenital dislocation of the hip, diminution in the size of the limb results, but it is found in hip disease and is a most important and ever-present sign. When marked and rapid, grave bone involvement may be suspected, when slight that the affection is not yet severe.

Would you suggest that the wasting was due to non-use of the limb. It is too marked and too rapid for that.

6. Of the swelling. This, perhaps, is the least important sign in the early stage of the affection, possibly because so difficult to determine on account of the depth of the joint, the hip being covered by large muscles—different in the case of the knee for example, it lying superficial. However, when present, this may be recognized in front of the capsule or behind the trochanter, or by a brawny thickening about the joint; best detected by grasping the part with the thumb in front and the fingers behind the trochanter, or *vice versa*. Remember I am speaking

here only of the early stage; later on, formation of pus causes marked swelling, easily detected.

Lastly, in regard to sensitiveness of the joint, elicited by some surgeons by striking upon the sole of the foot or knee—a very unreliable procedure, first because the muscles being put on guard very little or none of the concussion will affect the joint surfaces, unless great force is used, which might cause complaint even when used on the sound side.

Again, in the early bone trouble the joint surfaces are not involved, and therefore are not sensitive.

Recently I heard at a medical society a prominent physician relate a case of diagnosis and cure of hip-joint disease. He suspected such a trouble, so placed his patient on the floor and pounded on the sole of the foot; a cry resulting, hip disease was certain. Recumbency and weight to limb effected a cure in a few weeks. *Mirabile dictu!*

If we *should* desire to elicit sensitiveness of the joint, such being present, a better plan would be to use the femur as a lever, one hand under its upper third as a fulcrum, the other on the front of the knee forced back as the power, and the head of the bone pressed against the acetabulum as the weight. This can be done gently without exciting antagonism of the muscles or doing injury to the joint.

Of the family history. If tubercle or struma exists, all the more would opinion incline to arthritic bone involvement. You perceive I am a disciple of the scrofulous origin of the affection, either congenital or developed *de novo* from some acute disorder recently experienced by the child.

Thus I have rapidly individualized the signs of early morbus coxæ. When grouped they furnish such unmistakable evidence of the affection that he who runs may read.

Not all the symptoms may equally be present, one or more may be strongly marked and others in abeyance. But I beg of you, with the limp and pain and impaired motion and wasting present, don't poo-poo the fears of the anxious mother, and say "growing pains," "rheumatism," "child will grow out of it." If the positive signs on the one hand and exclusive reasoning on the other leave the case still in doubt, keep it well under

observation. You may already have had the alarm of the falling barometer, though the storm is yet distant.

In closing, you may desire to ask: If hip disease, what then? What is to be done? Even though time permitted, it is not my intention at this present to reply except in one word: Quiet! keep the joint at rest; immobilize it.

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**EARTH CLOSETS.**—Prof. Vaughn, says: The disposal of human excrement deserves more care than that of any other waste. Its accumulations collected upon and in the soil poison the air we breathe and the water we drink. The activity of many of the ptomaines, poisons arising from putrefaction, surpasses that of any other toxic agent with which we are acquainted. Many of the older cities have become so thoroughly saturated with filth that cholera and other infectious diseases thrive in them.

Where there is no system of sewerage the dry-earth closet is the best means of disposing of human excrement. Indeed, upon sanitary grounds, the dry-earth system is in many respects more desirable than the water-closet; but the former requires possibly more care than the latter. Economically, also, the dry-earth system will prove the better when it comes into general use and the excrement is used as a fertilizer. A dry-earth closet properly kept is free from all noxious gases, and there is no possibility of the drinking water being contaminated by it.

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**A NEW LIGHT.** The magnesium light has heretofore been used only for philosophical experiments and for taking photographs in caves or dark interiors. But now it is confidently predicted that in five years the magnesium light will be as familiar as is the electric light of today. The high cost has heretofore been a serious obstacle, but it is said to be now removed by a new German process which has reduced the price from \$40 to \$8 a pound, with a prospect of still further cheapening. A wire of moderate size equals the light of seventy-five stearine candles; the cost is now but little more than gas, no expensive works or street mains are required, and it is absolutely safe. The magnesium is simply burned in lamps provided with clock-work movement to feed the ribbon of metal regularly.—*Sanitary Era*. March, 1.



## CASES FROM PRACTICE.

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### REPORT OF CASES TREATED AT THE GYNECOLOGICAL DEPARTMENT OF THE ST. LOUIS POST-GRADUATE SCHOOL OF MEDICINE.

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Service of GEO. J. ENGELMANN, M. D.

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Reported by F. C. AMEISS, M. D., Assistant.

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[Read before the St. Louis Medico-Chirurgical Society, May 17, 1887.]

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#### GONORRHEA.

CASE I.—ACUTE GONORRHEA.—Mrs. L. B., colored, æt. 21, married thirteen years, sterile, entered the clinic December 4, 1885, complaining for six days of a profuse, yellowish discharge, severe itching at the vulva, frequent scalding and burning micturition. She admitted illicit intercourse.

On examination, excoriations were seen on the vulva, vaginal wall, and cervix. The parts were swollen and congested, tender and painful to the touch, and bathed in an offensive, creamy, purulent secretion. There was no discharge from the os uteri. I mention this to show that the abrasion on the cervix was not caused by an inflammation of the uterine mucosa, the most frequent cause of this misnamed "ulceration of the cervix."

The treatment adopted in this case is termed the *dry treatment*, introduced to the profession by Dr. Engelmann in a paper read before the St. Louis Obstetrical and Gynecological Society, October 19, 1885 [see COURIER, Vol. XV, No. 1, page 49]. After cleansing the parts with absorbent cotton, powdered iodoform was thoroughly applied to the entire mucous membrane. Then several loosely made tampons were introduced; the base of these tampons was antiseptic jute, 1 to 1,000 corrosive sublimate, which was surrounded by tannated cotton. The patient was sent home with directions to remain in bed for two days, after which she should re-

port at the clinic. On calling two days later, she said that she had been feeling so well as to be able to attend to her household duties. The only objection she raised to the treatment was its odor, requesting the use of something which would ‘‘smell more like roses.’’

Being placed on the table no discharge was visible; removal of the tampons showed healthy granulating abrasions with but very little purulent matter on their surfaces. The dry treatment with iodoform, jute, and tannated cotton applied as before. After three days she returned stating that she was well, which was verified by the examination; the discharge had ceased, the excoriations were covered with healthy mucous membrane, the pruritus had disappeared.

Nothing more was seen of this case until July, 1886, when she reappeared with a well marked chancre. Now the complete cure of her gonorrhea was confirmed; she stated that she had been perfectly well, that she had no discharge whatsoever since her last visit to the clinic.

This case presents a good example of the results obtained by the dry treatment. In most cases it is not relied upon as the sole remedy, but is used in conjunction with other methods of medication, as for instance, with vaginal injections, intra-uterine applications, electricity, etc. But here it was used exclusively, demonstrating its value and efficacy.

The *modus operandi* in this case is very simple. The mucosa is thoroughly coated with iodoform, one of the best germicides known; then the elastic sublimated tampon is introduced—again a deadly poison to the gonococcus; this (being rough, therefore liable to irritate, is coated with a layer of soft, tannated cotton) gives the inflamed surfaces rest; it supports and fixes the parts, and puts them on a splint, so to say; it keeps the abraded vaginal walls asunder, and thus prevents the rubbing of the parts against each other; it acts by pressure upon the thickened and inflamed mucous surfaces, counteracting the existing congestion; it absorbs the acrid, purulent discharge and thereby protects the parts from this irritating influence.

CASE II.—CHRONIC GONORRHEAL ENDOMETRITIS, SALPINGITIS AND OVARITIS.—Mrs. L. S., æt. 23, came for treatment November 10, 1886, complaining of a whitish discharge, painful menstruation, constant pain in the back and both inguinal regions, worse in the

right, and aggravated by exertion. She is married three years and a sufferer during this entire period, while she was healthy as a girl; has never conceived. First menstruated at the age of 15, the periods lasting four days, free but not painful. After marriage the duration of the menstrual period varied from four to eight and ten days, profuse and painful.

*Physical Examination.*—The vagina is of a deep red color and has a slightly granular feel. The uterus is enlarged, anteverted, mobility impaired; the cavity length six and one-half cm. ( $2\frac{1}{2}$  inches); the cervix, resting on the rectum, is enlarged, congested, and exceedingly tender at the right vaginal insertion. The ligaments and tubes are thickened, mainly the right; the ovaries are sensitive, enlarged and anteriorly displaced.

*Treatment.*—First the dry method was resorted to in conjunction with antiseptic vaginal injections, then intra uterine applications were made, later electricity was added; but with all this she is still complaining; her general health has improved, she is better mainly in the intermenstrual period, but during and after menstruation her suffering is the same if not worse. The treatment could only be symptomatic; a positive result is to be expected only from removal of ovaries and tubes, a procedure dangerous in a case of salpingitis and ovaritis, where a pus cavity could easily be ruptured and thereby its contents be spilled into the peritoneal cavity.

This case demonstrates the importance which should be attached to all cases of gonorrhea in the female, which should be managed with the utmost care in their incipency, so that the gonococcus may be destroyed before entering the uterine cavity and fallopian tubes. The best remedies for this purpose are the bichloride of mercury and iodoform; these may be applied as was done in Case I, or according to the plan of Schwarz (*Sammlung Klinischer Vortraege*, No. 279) which consists in cleansing the vulva and vagina with a solution of corrosive sublimate, 1 to 1,000, then thoroughly rubbing the mucosa with a 1 per cent solution which will remove the affected external layers of epithelium; after which the parts are dusted with iodoform and the vagina tamponed with iodoform gauze. After three or four days he repeats the same treatment and orders daily vaginal irrigations of corrosive sublimate, 1 to 5,000, to be continued for two weeks. If the disease has extended to the uterus, intra-uterine applications of solutions of corrosive sublimate, carbolic acid, or liquor ferri may prove successful. If



tubes and ovaries are affected, nothing but removal can possibly effect a cure.

Gonorrhea is one of the most frequent and most dangerous diseases that affect the female genitalia. Saenger, of Leipzig, states (in a paper read at the First Congress of the German Gynecological Society held at Munich, June, 1886) that he found in 1930 gynecological patients, disreputable women excepted, 230 cases, 12 per cent, in whom gonorrheal infection was the etiological factor of their respective diseases. Schwarz, referring to the treatment, makes the broad statement that a complete cure is rare; it certainly is impossible when the disease has extended to the tubes, ovaries and pelvic peritoneum. Such cases generally die of peritonitis, kidney disease, tuberculosis, etc.

This disease does not always begin with symptoms of acute inflammation, but very frequently in a quiet, insidious way—the “latent gonorrhea of Noeggerath.” The cited case demonstrates this to perfection; she begins to complain from the day of her marriage, not of severe symptoms, but of a general malaise which with time becomes more troublesome and is most severe at the menstrual period, at which time an increase and spreading of the gonococci is supposed to occur; later slight exertion causes suffering and makes her seek her bed. She is absolutely careful in all her doings; in walking she takes small short steps with the body not in an erect position, but bent forwards—the “*habitus abdominalis*” of Schwarz.

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## SEVENTEEN CASES OF TYPHOID FEVER.

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BY J. L. MIZENER, M. D., SMITHVILLE, MO.

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Thinking it would be of some interest to the profession, I herewith send you a report of the cases of typhoid fever treated by me during the summer and autumn of 1886. I treated seventeen cases, with three deaths. I will begin with the history of the three fatal cases, and will conclude with the peculiar complications or sequelæ of the other cases.

Sir Thomas Watson said, “Tell me how a man dies, and I will tell you why he did not live.” Hence it is of more importance to know why a patient dies than to know how one gets well.

In the commencement of the seventeen cases there was but little variation in the general symptoms, and hence I will omit the general details of symptoms. Suffice it to say the cases were very uniform as to their beginning or first stage. Among the first cases were four in one family, one young lady and three brothers (all grown) with two deaths, these being the two youngest boys, age respectively 21 and 24 years.

The first case I will report was Mrs. Th., aged 22 years, married, the mother of two children, who had always enjoyed good health. She was taken ill July 30, with the usual symptoms of typhoid fever, with a feeling of general malaise, followed with a light chill with diarrhea; morning temperature,  $100^{\circ}$ , with evening temperature,  $103\frac{1}{2}^{\circ}$ , ranging as high as  $105^{\circ}$ , with great prostration. On the thirteenth day she had quite a hemorrhage from the bowels. The abdomen had been very tympanitic for several days, her mind wandering, and she kept picking at the bed-clothes. She died of peritonitis on the sixteenth day.

The second case was a young man, aged 21 years, G. P., one of the four cases occurring in the family above mentioned. He was strong, robust, and had always enjoyed good health. While feeling very unwell, and before taking his bed, he played a hard game of base ball, and exerted himself very much, as the result of the game depended much on his play. He had the usual symptoms of typhoid fever, his evening temperature ranging from  $103\frac{1}{2}^{\circ}$ , to  $105^{\circ}$ , with a fall in the morning, ranging from  $100^{\circ}$  to  $102^{\circ}$ , pulse ranging from 100 to 105 in the minute, with subsultus tendinum. On the thirteenth day he had a hemorrhage from the bowels, and died on the fifteenth day of his illness. The cause of death was embolism in some main blood vessel on the right side. The pulse on the right side at the radius and in right ankle could not be felt for ten hours before death, while the pulse in left side was good, or could be felt at wrist and at ankle, while auscultation revealed nothing wrong with the heart as to the formation of clots.

The third case was H. P., brother of the case just mentioned. He was 24 years old. He fell ill Sept. 2, and died Sept. 27. His was considered rather a mild attack, as his temperature did not run extremely high, reaching  $104^{\circ}$  as its highest mark, and frequently falling to  $99^{\circ}$  in the morning. He had no hemorrhage or other bowel trouble, and his mind kept very quiet and reasonably clear. His stomach remained in fair condition, but there was a tendency to the

formation of blood clots. On the fifteenth day they found his left foot cold, and on examination Dr. Riley, who had kindly visited him for me, found a clot in the anterior tibial artery at the arch of the foot. At the same time his temperature was less than  $100^{\circ}$ , and it never rose above  $99^{\circ}$  after that day. He was taking stimulants, and a reasonable amount of fluid nourishment. We ordered ammonia carb. to be added to his alcoholic stimulants, and wrapped the foot in warm cloths made wet with spirits of ammon. aromat. which relieved him. Reasoning that some clot might be washed into the circulation, we ordered the stimulants and ammonia kept up, and he seemed to be getting along very nicely, taking plenty of good nourishment, such as milk and soups, and had no fever, pulse ranging about 75 to 80 per minute; sleeping well, bowels acting from once to three times in the twenty-four hours. On the evening of Sept. 27, he had been up, and his bowels acted very well and very naturally. After this he began to complain of pain over the sternum, and he requested that I should be sent for. I saw him in about thirty minutes after he began to complain, and found him pulseless at the wrist, his heart's action very labored, and its sounds seemed muffled. He died in ten minutes, or less, after I arrived, of heart clot, notwithstanding he was taking liberal doses of carbonate of ammonia and brandy.

The maximum duration of these cases was twenty-five days, and the minimum was fifteen days, and the average eighteen and one-third days. Two of the three fatal cases had hemorrhage from the bowels.

I will now relate the complications attending some of the fourteen cases that recovered. Six had more or less hemorrhage from the bowels, some of them very profuse. None of those six had diarrhea at any time. A number of those who had no hemorrhage had diarrhea. All the cases had the evening rise in temperature and the morning fall that attends typhoid fever.

One complication I desire to make prominent was the character of the pulse. After the fever had lasted from fifteen to twenty days it would decline, and then the pulse would become intermittent, and in several cases very slow, running from 40 to 55 beats per minute—that too in young subjects. I will cite two or three cases to illustrate the behavior of the pulse.

First case, Miss B., æt. 18 years. The fever had run a usual course, lasting about twenty-one days, and I declared her convales-



cent, and had quit visiting her regularly, and thought she was doing very well. One day her mother found her up and before the glass arranging her toilet to meet a young man in the parlor. Her mother at once disapproved the idea, and she sat down in an easy chair in a pouting mood, and in thirty minutes she called for the chamber, and had a very copious hemorrhage from the bowels, with very little rise in her temperature. I was sent for immediately, and prescribing, left her comfortable.

At my next visit I found her with fever, temperature  $103.5^{\circ}$ , and complaining of her left limb. On examination, I found the limb swollen some and very painful over the course of the femoral vein, from which developed a case of phlegmasia dolens. The pulse was quick and intermittent, once in every six to eight beats. After putting her on a treatment for the phlebitis she gradually recovered, yet the intermittent pulse was a trouble all through the case to ultimate recovery. The limb remained slightly edematous.

The next case was the most peculiar one of the whole group. J. H., aged 27 years, strong and robust, had always enjoyed good health with the exception of an attack of rheumatic fever several years ago. He was taken ill Oct. 10, with symptoms of typhoid fever. His bowels were inclined to be constipated; his evening temperature was  $104^{\circ}$ , and morning temperature  $101^{\circ}$ . This condition of things lasted about twenty-two days, when he had a hemorrhage from the bowels. Not being very profuse, it yielded to moderate doses of opium, and after a few more days he was considered convalescent, and I quit visiting him for a few days, but in about six days he began to complain of his shoulder and elbow and wrist joints paining him so he could not move his right arm without giving great pain. I was sent for and found him with a temperature  $104.5^{\circ}$ , and pulse 110, and suffering very great pain. I diagnosed rheumatic fever, prescribed accordingly, and had the satisfaction of seeing him relieved in about thirty-six hours. Temperature fell to  $99^{\circ}$ ; pulse 78 per minute, tongue cleaning and appetite returning. I again pronounced him convalescent, and ordered him a tonic treatment. In about three days I was sent for again, and being absent Dr. Riley visited him for me. (I will here remark that Dr. Riley had frequently visited this patient with me.) He found him with a temperature of  $97^{\circ}$ , skin cool, and pulse 25 beats per minute, and very intermittent. I saw him next morning, about sixteen hours after Dr. R. had left him. His pulse was some

better when the doctor left, had risen to 55 per minute, but was still intermittent. We found him at the visit above named in a similar condition to what he was the day before—pulse 25, skin cool, temp. 97°. And now the stomach was rejecting everything taken, without any apparent effort, would eject even a teaspoonful of water without appearing to be sick. We resorted to injections of stimulants and nourishment by the rectum, which made a little improvement in the pulse rate, raising it to about 40, but still it was intermittent. At our next visit, which was in about six hours, the patient had sent for Dr. Rice. After hearing the history of the case he could not arrive at any opinion, as he expressed it, yet the patient was in about the same condition, pulse 30, temperature 97°. All this time he was receiving stimulants by the rectum, but they seemed to be losing their virtue, and the outlook was gloomy for him. I proposed to the doctors that we would give, in addition to what we were giving, a hypodermic injection of morphia and of atropia. They agreeing, we did so, and had the satisfaction of seeing him rally, and after a long and tedious convalescence, he ultimately recovered, and is in good health to-day. Of course the physiological effect of the morphia and atropia will be admitted at once, and I will state that we had to keep up those injections at intervals of six to twelve hours, else his pulse would become slow and intermittent, and while under their influence his stomach would retain milk in small quantities.

In concluding this very brief report, for I could make it much longer by reporting several other cases of slow and intermittent pulse among my patients and those of Dr. Riley (and I will here express my gratitude to Dr. Riley for his unselfish kindness shown in visiting those cases with and for me), I will ask the attention of the profession to the character of the complications as reported, and their experience as to such complications.

In regard to the treatment of my typhoid cases, I will say I give as little medicine as possible, relying largely on good fluid nourishment and stimulants. As an antipyretic I gave quinine in large doses at the time of high temperature, say ten to twenty grains at a dose, once or twice in twenty-four hours. In all my cases I gave turpentine emulsion early and freely, and gave aromatic sulphuric acid in ice water when very thirsty, and opium to control the diarrhea, my constant care being to place my patient in the best hygienic conditions possible.

## CITY HOSPITAL REPORT.

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By H. C. DALTON, M. D., SUPERINTENDENT.

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DEPRESSED FRACTURE OF THE SKULL.—HERNIA CEREBRI.—  
RECOVERY.

Jacob Richert, æt. 9. German, single, a previously healthy boy, received a kick from a horse, causing a depressed fracture of the frontal bone, located 2.5 cent. (1 in.) above and 2 cent. ( $\frac{3}{4}$  in.) behind the right external angular process. Area of depression,  $2 \times 4$  cent. ( $\frac{3}{4} \times 1\frac{1}{2}$  in.). The overhanging posterior margin was chiseled off, the sunken part was removed, revealing a few slight lacerations of the dura mater. The wound was then washed and dressed antiseptically, the anterior portion of the incision being closed with sutures while the posterior portion was left open for drainage. Cold cloths were applied. The patient suffered little, rested well, but took very little nourishment, his temperature remaining about  $38^{\circ}$  C. ( $100.4^{\circ}$  Fah.) for the first five days. At the end of this time he began to grow restless, would at times, moan in his sleep. Temperature went to  $39^{\circ}$  C. ( $102.2^{\circ}$  Fah.) and pulse became somewhat rapid and full. The wound, which at first showed a tendency to heal, opened when the catgut sutures were absorbed, and discharged pus. Constipation required the use of purgatives and enemata. The restlessness gave place in a few days to a drowsy, somnolent condition, and the fever continued up to the 14th day. He then became brighter, the temperature dropped to  $37^{\circ}$  C. ( $98.6^{\circ}$  Fah.) and the wound appeared to be granulating in a healthy manner. The granulations, however, became exuberant during the next ten days, and arose 1 cent. ( $\frac{3}{8}$  in.) above the general level. Five days later his general condition again became worse. He did not rest well, complained of pain in his head, and edema developed in the tissues around the, at this time, pulsating tumor.

There was another slight temporary improvement in the symptoms, but about Nov. 12th (the 37th day of his illness), the headache returned, being especially severe at night; patient would frequently utter a peculiar, plaintive cry. On the 14th, he had two epileptoid convulsions with loss of consciousness. Pulse was irregular and weak; temperature natural, respiration slow. Part of the fungous mass was on the verge of sloughing off, evidently because of the constriction at its base, from its own growth. The symptoms be-



came more serious, when it was concluded that active interference was indicated. As much of the constriction as possible was relieved by the removal of some of the sloughy parts, and by stretching and loosening the encircling tissues. During the next twelve hours, the patient's condition remained bad; he obtained but little rest, and complained much of pain in his right ear and shoulder. A day later, he awoke in the morning, bright and cheerful, and from that time improved constantly. A few days afterwards, a plate of the fungus, one cent. thick sloughed off *en masse*. With the assistance of moderate pressure, by means of adhesive strips, a continuation of this process soon reduced the size of the tumor to a level with the adjacent skin, and healthy granulation with cicatrization followed, so that the wound was entirely healed by Feb. 25, 1887. His general health was then excellent and mental condition perfect.

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REPORTED BY DR. BRANSFORD LEWIS, SENIOR ASSISTANT PHYSICIAN.

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ANEURISM OF THORACIC AORTA—DEATH—AUTOPSY.

D. R., male, æt. 50, Irishman, single, teamster. Admitted July 14, 1886.

Patient's mother died of consumption; his father, who suffered from rheumatism during life, died from acute disease, of the nature of which patient had no knowledge. Of himself, patient, a hard drinker, gave a history of a venereal affection which appeared to have been chancroid; otherwise he had been a strong, healthy man most of his life. He had noticed swelling of the feet at odd times during the last several years; had been troubled with shortness of breath for about one year previous to his entrance. It was increased by the slightest exertion. He had had slight transient attacks of rheumatism, which were brought on, he thought, by heavy lifting required of him in his business as teamster. Recently he had complained of pain in the left mammary region and the small of the back. Bowels were usually constipated, to which condition he ascribed the vertigo frequently present. A powerful heaving pulsation was to be seen and felt over the precordial and aortic areas. Percussion gave dulness below a line on a level with the top of the sternum, extending from the right linea mammaris to three centimetres to the left of the sternum; the left border ran from that point to the apex, located in the seventh

interspace, 3 cent. ( $1\frac{1}{8}$  inches) without the left mammary line. Dulness below merged into that of the liver. Percussion of the lungs anteriorly normal; posteriorly there was diminished resonance in the right infra-scapular region. The respiratory rhythm was altered; a short inspiration was followed immediately by an expiratory movement which was abruptly cut short (seemingly on account of pain, although he complained of none); after a pause of some length, expiration was completed and followed directly by inspiration. A few subcrepitant râles were audible posteriorly. Increased vocal resonance and fremitus in the right infrascapular region. A double murmur was to be heard, both at the apical and at the aortic area, transmitted from the latter into the carotids, and closely simulating aortic stenotic and regurgitant murmurs. There was accentuation of the pulmonic second sound. Radial pulse 68, full, regular, of good strength and synchronous on both sides. There was no bulging of the precordia. Urine of natural color; deposited heavy sediment; specific gravity, 1024, chlorides and phosphates normal in quantity; no albumen. Small, round, renal epithelium, a very few casts and some bladder epithelium were observed with microscope. No hoarseness or irregularity of the pupils ever appeared.

From the time of his entrance, although efforts were made to tone him up with nutriment, tonics and rest, together with internal administration of iodide of potassium, patient steadily grew weaker, suffered more and more from dyspnea, and edema appeared in his limbs. Two days before his death (which occurred August 23, 1886) he was suddenly taken with excruciating pain in the precordial region; this caused redoubled intensity of the dyspnea, and patient finally sank, with cyanosis and other symptoms of heart failure.

Autopsy.—Brain and membranes normal. Pericardium contained 60 cc. (2 oz.) of fluid. A general dilatation of the aorta extended from its origin to within 8 cent. (3 inches) of its diaphragmatic orifices. Its largest diameter, 10 cent. ( $3\frac{7}{8}$  in.) was located in the transverse portion; from that point it tapered gradually to the normal calibre. At the junction of the transverse with the descending portion, in its posterior wall, was a sacculation 4 cent. ( $1\frac{1}{2}$  in.) deep, and having an orifice 8 cent. ( $3\frac{1}{8}$  in.) in diameter. Its walls were covered with layers of fibrin, were thin and friable, and, like those of aorta, were lined with atheromatous

deposits. Cardiac valves were normal; there was doubtless some relative insufficiency of the mitral, on account of the dilated hypertrophy of left ventricle present. Weight of heart and aneurism together, 950 gm. (31 oz.) Abdominal organs congested.

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FOOD FOR MILCH COWS.—The natural food of the cow is grass, either green or dried, and when she is fed exclusively upon it, her fresh milk is generally neutral in reaction. On the contrary, the milk of cows fed, either wholly or in part, upon food other than the natural, is almost invariably acid.

Dr. Mayer, of Berlin, found the following results:

"Of cows fed with brewers' grains, red potatoes, rye, bran and wild hay, in five instances the milk was slightly sour, in one very sour.

"Of forty cows fed with potato mash, barley husks and clover and barley straw, in ten examined the milk was sour, in three very sour.

"From five cows fed from a cow-feeder on luke-warm bran mash and hay, in four the fresh milk was quite neutral, in one it was decidedly alkaline."—Dr. H. A. Pooler in *Med. News*, Oct. 23.

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WHOOPIING-COUGH IN A CAT.—O. BOURN reports that while attending a little boy for an unusually severe attack of whooping-cough he was informed by the mother of the child that for a fortnight their cat had had five or six distinct coughing fits daily, similar in every respect to the boy's, and ending with the expectoration of frothy mucus. Between these coughing fits the cat was tolerably bright and active, though not so lively as formerly, and she had fallen away in flesh. He thinks this is the first case of this disease having been transmitted from man to any animal.—*Brit. Med. Jour.* May, 7, 1887.

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TENDENCY OF DRUNKENNESS TO CRIME.—T. L. Wright in a paper with this title says: The corruption, and indeed dissolution of the moral nature through the power of alcohol, are open to observation in the petty and despicable vices of drunkenness, as well as in the astounding baseness and seeming depravity of its more conspicuous outrages.—*Jour. of Inebriety*, April, 1887.



## EDITORIAL.

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### HOW TO DISPOSE OF HUMAN EXCRETA.

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One of the questions which is taxing the resources of the municipal governments of all large towns and cities, not only of our own but of all civilized governments, is that of securing a pure water supply wherever large numbers of people dwell closely together.

Intimately associated with that is the question of the disposal of the waste material from our bodies, whether in health or disease.

We do not purpose in this article to discuss the question of city sewerage, important and interesting as that is; but to refer rather to the matter of the disposal of human excreta in rural, or suburban, or village neighborhoods in which a general sewerage is for the time or for ever impracticable.

Residing in such a suburban neighborhood and having official relations with the sanitary affairs of a great city, the subject is one which has become exceedingly interesting from several standpoints.

Probably the most frequent arrangement for this purpose is by digging a privy vault, which may be lined with brick or stone and cement or with plank, or may be wholly unprotected.

It is simply a question of time and place as to just how soon any privy vault will become a foul, stinking nuisance. Viewed from the standpoint of sanitary reform a privy vault is *per se* a nuisance.

In a paper read before the Ohio State Sanitary Convention recently Dr. John Mc Curdy of Youngstown, Ohio, expresses himself thus forcibly regarding the subject.

"Privy vaults are today the most unmitigated and unpardonable

nuisances that infest the face of the earth. There are privies 'to right of us,' privies 'to left of us,' privies 'in front of us,' reeking in foulness, and I am grieved to add that the charge of our brigade upon them, like Tennyson's, is very light, and likewise—

'Into the jaws of death,  
Into the mouth of hell.'

"Sanitarians, we must face this subject squarely, for there is not a city, town, or village that is not now honey-combed by them, and at this hour diggers with bended backs and sweating faces are adding to the number by tens of thousands. It is but a question of time when all our surroundings will be fully saturated; the ground air charged with virulent poisons and the ground water saturated with the germs of death. The effluvia from these vaults are like the smoke from the bottomless pit, ever ascending. Brick or stone and cement; what do they amount to? Not much, but the best we can enforce. Each brick will suck up and hold at least one pint of liquid excrement, each stone absorbs the same as if a sponge. Now with a vault walled with several hundred of bricks, or many tons of porous stones, or both, which are fully saturated with vault contents, which in turn are surcharged with bacteria, bacilli, micrococci, and all the other germs possible to convey or generate disease, and as these press into the air or ground, instantly the same pores are again filled, this time maybe with the discharges of cholera, typhoid, scarlet or yellow fever, diphtheria, dysentery, smallpox or measles; and so this evaporation and absorption, evaporation and absorption continue night and day, week after week, month after month, and generally year after year,—how can we be without epidemics while this order of things lasts?"

In a pamphlet by George E. Waring, Jr., probably the best authority on sanitary engineering and sewerage in this country, occur the following vigorous paragraphs.

"Out of door privies, those temples of defame and graves of decency that disfigure almost every country home in America, and raise their suggestive heads above the garden-walls of elegant town

houses, are, I believe, doomed to disappear from off the face of the earth. Twenty years ago, [the pamphlet was published in 1870] every back-yard in New York City was provided with one of these buildings, now, since the water-closet has come into universal use, probably there are not twenty of them to the square mile. Twenty years hence it is to be hoped that they will become equally rare in smaller towns and in the country." Col. Waring was altogether too sanguine in his anticipations. While continued experimentation has yearly added new demonstrations of the perfect efficiency of the dry earth system, it still remains true that comparatively few, even of those who claim considerable general intelligence, have made practical use of this system in their own homes, and still the reeking stench from full and foul privies is one of the most frequently recurring nuisances reported to the health departments, even of cities which have a tolerably extensive sewer system. Vid. Health Commissioner's Report for 1885-6 p 17 where it is stated that among 3,660 nuisances of all sorts reported during the last half of the year there were 1,675 "full, foul and defective privy vaults". On p. 18, we learn that of 1,770 nuisances reported by the police officers during the months from April, to September inclusive, 869 were "full, foul and defective vaults." On p. 19, it was stated that of 13,899 nuisances reported by the sanitary officers during the same period, 6,051 were "full, foul and defective vaults."

The remedy for all this stench and nuisance prejudicial to health is to be found in the general adoption of dry earth defecation as the method of disposal of human waste.

The essential principle of this system is the provision for covering with a layer of dry earth every deposit of excrement immediately after it is made. In its simplest form a wooden drawer is set under the seat of an ordinary privy without any vault. A bed of dry earth some two or three inches in thickness is spread upon the bottom of this drawer, and a barrel or pail filled with sifted dry earth, stands in a corner near the seat. After making a deposit



in the drawer a small quantity of earth from the barrel or pail is thrown upon the deposit simply enough to cover it.

More elaborate contrivances have been designed by which the fecal matter is covered at once with dry earth by mechanical contrivances which are quite as ingenious and ornamental as the most improved modern water closets.

So efficient is this system that a commode arranged to be used with dry earth may stand in the boudoir of the most delicate and fastidious lady, and be habitually used, yet never reveal its presence to the sense of smell in the slightest degree.

Those who may be inclined to offer objection to the adoption of earth closets on the score of expense will be surprised to learn that all the extra appliances of a well appointed earth-closet cost considerably less than an ordinary deep vault lined with brick or stonework, and the infinitesimal expense involved in the simple device of using an ordinary bucket and shovel (or a shingle will answer every purpose), takes away all force of that argument. The dry earth scraped from a dusty road on any summer day will answer every purpose, and involves no trouble in preparation and almost none in obtaining it.

Another point in the matter of dry earth defecation of feces is one which is too little known or recognized by physicians. By covering the bed-pan or chamber vessel with a layer of dry earth and then covering the deposit at once with another quantity of dry earth the room of a bed-ridden person may be kept perfectly free from unpleasant odors.

It would be a thing devoutly to be wished if this dry earth system could be adopted not only by individuals, but could be made obligatory upon whole communities that are so situated as to render the general use of water-closets impracticable or a necessary source of nuisance detrimental to the public health, as for example, some districts in the suburbs of our own city.

A section of our city which is now filling up with residences more rapidly than any other part, is so situated with reference to

water supply and general sewerage as to be practically inaccessible to either for many years to come. Some of the elegant residences already built and many of those in course of erection and many more now being planned are or will be furnished with water closets which are dependent for their immediate freedom from direct nuisance and danger to the occupants of these homes upon a supply of water in a tank in the attic, which must be pumped by hand or other power from cisterns or wells. To any one who knows by experience the vicissitudes involved in such a source of water supply during the protracted summer season of our climate, the sanitary security and comfort of a water closet in such a suburban location is at least a question.

But when it is borne in mind further, that all the waste from these water closets, after being carried in pipes or closed sewers for a limited distance, even if this distance be ample to secure exemption from further nuisance to the particular residences which furnish the excrement, is emptied into open water courses which run for miles under the burning summer sun, crossing the main thoroughfares leading out from the city, and at last meandering with sluggish, scanty current among the magnificent trees and under the beautiful bridges of Forest Park, this waste water during the summer heat forming a considerable proportion of the stream which bears the euphonious name of River des Pères, it becomes a grave question whether the municipal legislature should not forbid the use of water closets in portions of the city not accessible to the public sewers and require some efficient system of dry earth disposal of human excrement, even making provision for the regular removal of the deposits at stated intervals, if that prove necessary in order to make the system practical, as probably would be the case.

## MALPRACTICE SUIT.

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An interesting suit for malpractice has recently been concluded at Mansfield, O., resulting in a verdict for the defendants, which was promptly returned by the jury, after a very brief consultation, at the conclusion of the testimony.

A brief résumé of the case will not be without interest to our readers:

The defendants in the case were Dr. J. W. Craig, and Dr. R. Harvey Reed, both of them for many years connected with the several railroads, passing through that city, in the capacity of surgeons of those roads.

The plaintiff, Jos. P —, was a young man who, as shown by the evidence of himself and others, was addicted to the use of liquor, and was under the influence of alcohol at the time of the accident, which occurred Oct. 22, 1885. In attempting to board a B. & O. train as it was passing, his foot slipped, and he fell under the car, the last pair of trucks passing over his left leg mangling it above the knee and also passing over his right foot at the instep; an empty coal car, following, passed over him also.

Drs. Reed and Craig were called to the case, and after examination decided that it would be necessary to amputate the left leg above the knee, and also a part of the right foot, stating this conclusion to the young man and his brother, the parents being away from home.

The young man being of age and in indigent circumstances, the surgeons reported the case to the township trustees in order to obtain compensation for their services: The father took exceptions to this step on their part, but refused to become responsible for his son's bill. The surgeons who performed the operation were dismissed, and the patient was immediately put under the care of another surgeon. Soon there were rumors of a prospective suit for malpractice which were confirmed by the filing of a petition asking for damages in the sum of \$20,000 for the removal of the right



foot which it was claimed was "needlessly and wrongfully amputated" and "in violation of plaintiff's right, and direct command."

The amputated foot was shown in the court-room, and it was proven that this had been preserved in alcohol by the attorneys of the plaintiff and that the defendants had had no opportunity of tampering with the same since it had been removed.

It appeared from the cross-examination of the witnesses for the plaintiff, that the examination which they had previously made of the foot was extremely superficial, and the cross-examination with the condition of the foot as there shown with the evidence of the defendants as to the conditions present when they operated showed conclusively that the surgeons had practised good surgery in operating as they had done.

We cannot give the testimony in full; but will give the essential parts which demonstrate the justice of the verdict rendered.

The first physician called by the plaintiff was Dr. Geo. Mitchell who testified that Col. Fink, the plaintiff's attorney, brought the foot to him a short time after it was amputated, and said that he saw then that the fifth metatarsal bone and the little toe were injured. On being asked to state to the jury, what he now found the condition of the amputated foot to be, he said:

"I find the little toe is crushed, the fifth metatarsal bone to be crushed; the second and third metatarsal bones are fractured; whether they are crushed or not, I am unable to say;" and "I find no injury through the tarsal bones," and on being asked as to whether the amputation as it was performed was proper or not, he said: "I should think it was not."

On cross-examination, by Judge Dirlam, he said he could not find the arteries on the amputated foot and [that if he found the blood supply was cut off "it would be necessary to amputate it," "that it looked as though it had been crushed and pulpified, and there was a fissure between the first and second metatarsal bones and a separation of the bones, and that the break in the shoe corresponded to the fissure in the foot."

When asked: "With the foot just as you can see the appearances there, with the bones separated so that you can see through, and with these two bones off, and the cartilages so torn as to make a separation down in the centre of the foot, tell us what operation, as a conservative surgeon, would you make on that?" He said, "Well, if I saw it just as it is there, I would make an amputation."

Dr. W. R. Loughridge had seen the foot twice. He thought that taking the foot as there presented, and supposing the bottom of the foot and the plantar artery to be intact, the amputation was unnecessary, that only the fourth and fifth metatarsal bones with the corresponding toes should have been removed.

On cross-examination, he said, "Of course, as that foot is now, no man would try to save it." Drs. D. V. Ireland, A. E. Keyes, and A. V. Patterson all thought that the inner part of the foot might have been saved. The latter admitted that in a consultation with the plaintiff's attorneys a theory had been evolved that the car wheels never ran over the foot at all; but on being shown the shoe and foot together he virtually acknowledged that the evidence showed that the wheel had run over the foot at right angles, and that seeing the foot as it appeared at the trial he would have amputated it.

Dr. Ireland, on cross-examination said, that his experience in railroad surgery was limited to one case in which he had assisted in making an amputation of the foot. He said, that amputation would have to go above the point of obliteration of the arteries, and if the arteries were destroyed he would not wait.

Dr. Keyes acknowledged that the appearance of the foot indicated more serious injury than he had realized at the previous examination, and said:

"If I had found that the foot was cold and the watery part of the blood was oozing out, it would indicate that the circulation was cut off, and there would then be no doubt about amputating."

Dr. J. W. Craig, one of the defendants, testified that the shoe had a very distinct mark across the bottom, nearly transverse,

about the region of the instep, besides being bloody, and having other marks upon it, and was badly torn and broken across the sole; that after looking at the shoe and comparing it with the foot, he formed an opinion that a car wheel had gone across it; that in the consultation with his son and Dr. Reed he had found the circulation in the foot destroyed, the foot bursted open at the sides and the sole of the foot pressed away from the bones; that on introducing his finger into the rent, he found the foot cold, but could not find the arteries; he found the skin and fascia torn off the top of the foot, the tendons exposed, and the joints torn open so that he could stick his finger in between them; also a roughness of the bones in a number of places, caused by fractures, the ends of which were sticking through the flesh. The foot was in a distorted condition, and he was obliged to put the pieces together before he could realize the amount of damage done them. The nerves were destroyed, and the foot was without sensibility. On further examination, he found the second, third, fourth and fifth metatarsal bones crushed, the cuboid, middle cuneiform, internal cuneiform, and scaphoid bones also injured or broken, and he considered nothing short of amputation advisable or good surgery.

Dr. J. H. Craig, who administered the anesthetic, and Dr. Reid who operated, confirmed in almost every particular the testimony of Dr. J. W. Craig as to the condition of the foot at the time of the operation, and the propriety of making the amputation instead of trying to preserve the inner part of the foot was strongly endorsed by the leading surgeons of Central Ohio and elsewhere who had had wide experience in railroad accidents.

As already mentioned the verdict was promptly rendered in favor of the defendants whom we are happy to congratulate on this result of a case which has caused them much annoyance and expense, and which there seems evidence to show was instigated largely by professional jealousy and malice.



## BERGEON'S METHOD OF TREATING PHTHISIS PULMONUM.

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In a recent number of the *COURIER* we called the attention of our readers to the recent observations of Prof. Bergeon and others with regard to the treatment of phthisis pulmonum by means of enemata of sulphuretted hydrogen gas. In the *Therapeutic Gazette*, April; there is a carefully prepared paper on the subject by Prof. H. C. Wood, than whom no one among our best writers is better entitled to have full weight accorded to his judgment as to the value of any therapeutic measure.

Having described the method of treatment, and noted the results obtained by others, he remarks that the evidence so obtained "is sufficient to indicate that we are in the presence of a very important improvement of, or rather a very important addition to therapeutics." He regards it as improbable that the good achieved is the result of any parasiticial influence. He says, "There is at present, then, no proof that the sulphuretted hydrogen, when it does good in phthisis, acts by killing the bacilli, and there is still less proof that it in any way increases the direct resistive powers of the individual to the action of the bacilli. In some acute and chronic diseases of the skin, local applications of sulphur act with the most astonishing rapidity and effectiveness, and the thought naturally suggests itself that in Bergeon's treatment of consumption the success is achieved by the action of the sulphuretted hydrogen upon the inflamed lung-tissue, or in other words, that the plan of treatment is simply a means of making an application of sulphur to the pulmonic mucous membrane and tissue." The fact that asthma and pulmonary catarrhs are benefited by this treatment seems to add weight to this view of the case.

Prof. Wood has found similar results to follow enemata of saturated solutions of sulphuretted hydrogen as those obtained by the gaseous enemata; and in other cases has found the same effect from

the administration of the same solution by the stomach, though some persons will not tolerate the remedy in this way at all. The mode of administration by the mouth which he proposes is to place in a tumbler at first a half ounce and later an ounce of the saturated solution of sulphuretted hydrogen and then add two or three ounces of carbonic acid water from a highly charged siphon, the whole to be drunk while effervescing.

In the conclusion of his paper he refers to some cases of poisoning from sulphuretted hydrogen which have been reported in connection with this mode of treatment.

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### GONORRHEA IN WOMAN.

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Several years ago, when our attention was first drawn to the views of Dr. Noeggerath, then just promulgated, with regard to the great importance and far reaching influence of the gonorrheal virus as it effects woman, we were disposed to think the doctor's position untenable, and that he greatly overstated the dangers and ascribed to the effect of this virus results for which it could not properly be held responsible.

More extensive observations, however, have led us more and more to accept his opinion and endorse it, and we take pleasure in calling the attention of our readers to a paper by Dr. W. J. Sinclair, in the May and June numbers of the *Medical Chronicle* (Manchester, Eng.), believing that far too little study and thought have been given to this subject by those in our own country who have the best opportunities to observe cases of this sort, and believing, further, that prompt and efficient attention to cases of gonorrheal infection in women may be the means of preventing the development of the more distressing forms of pelvic disorder which are so often induced by gonorrheal infection. Among these results of gonorrhea may be noted chronic discharges, metritis and endometritis, salpingitis and pyo-salpinx, ovaritis, peritonitis, menstrual derangements and sterility.

Dr. Sinclair says: "That the gonorrheal virus and puerperal septicemia are the great factors in producing the more serious pelvic diseases cannot now be disputed against the weight of evidence; and there can be no doubt that a large number of the apparently puerperal septic cases are of gonorrheal origin."

He records in his paper a number of interesting cases of severe pelvic disease which were directly and evidently traceable to gonorrheal infection, and which strikingly illustrate the serious consequences which may in any case follow on such infection.

He remarks that, as a rule, this disorder in women attracts so little attention that the doctor is called in only to deal with the complications as they arise. The reasons for this which he suggests are "the absence in most cases of severe urinary troubles; the want of an evil conscience which is usually present with the man; the comparative difficulty with which women can minutely inspect the pudenda when slight discomfort begins, and their natural shyness about submitting to the inspection of other eyes; and the comparative frequency with which some plausible reason can be assigned, as for example, the effects of intercourse soon after marriage, derangements of menstruation from some supposed 'cold,' and the disorders of pregnancy." "No doubt," as he truly says, "one active influence in preventing the detection of gonorrhea in the woman while it is yet in the curable stage, is the conviction on the part of the man that the thing is of no importance if she can be kept in ignorance of its nature. Matters will assume a very different aspect when all concerned awaken to the importance of prevention and the difficulty of cure when the disease has reached the stage of complications."

If we can do anything to awaken our readers to a due appreciation of the disastrous consequences of an unrecognized and untreated or mistreated or inefficiently treated gonorrhea in women, and in the same ratio of an incompletely cured gonorrhea or gleet in the male, we shall have accomplished one object in writing these lines.



DEFECATION.

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Recently in reading a paper by Col. Waring upon the subject of the dry-earth system of disposal of human excreta we observed the use of the word "defecation" in what was to us an unusual signification.

On reference to Worcester's unabridged dictionary we were surprised to find that the meaning of the word which had been most common in our observation and, as we believe, in that of most readers of medicine at least, is given only in the appendix of the dictionary, as if it were a comparatively recent use of the word. The definitions in the body of the work are as follows: 1. The act of defecating or cleansing from lees, dregs and impurities; clarification. 2. Purification from what is gross or low.

It is in the sense of this first definition that we may speak of "defecation of feces," as by the use of dry earth.

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A SANITARY POLITICAL PLATFORM.

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"Knowing that all the things following can be done with perfect success and economy, that they are actually done, and that they need everywhere to be done, the *Sanitary Era* demands:

## I

A Purified and Perfected Public Water Supply for every city and incorporated village.

## II

Strict Prohibition and Prevention of the Pollution of Water Courses (surface or underground) by Sewage, Privies, Cesspools, Drains, Styes, Stables, Offal, Carrion or other refuse.

## III.

Effective Sanitation of Sewage enforced, without discharge of its impurities into Sub-soil, Atmosphere or Streams.

## IV.

Enforced Defecation by Dried Soil of all Organic Excrement and Refuse.

## V.

Enforced Envelopment of all Buried Corpses (future) in from 30 to 60 cubic feet of Dried Soil according to size.

## VI.

Enforced Ventilation of all Public Buildings, and Conveyances, School-Houses, Churches, Theatres, Halls, etc.; exhausting at all times, without draughts, at least 15(?) cubic feet of air per minute for every person and for every gas or oil light therein; the said measure of exhaust air to be ascertained and shown by the anemometer at the outlet registers.

## VII.

Every undrained piece of wet or marshy ground within the limits of a city or incorporated, village to be held a public nuisance, and to be abated by legal proceedings against the owner, the property, or the municipality, on complaint of any citizen.

We respectfully solicit the advice and co operation of Sanitarians and Editors of public journals, in agitating the above programme of Sanitary Reform. It is of course open to amendment, and criticism as well as endorsement will be acceptable. It is not intended to be all-comprehensive, and many things might be added; but it is taken for granted that to concentrate attention on the half-dozen great sanitary essentials will be more effective policy than to formulate a creed of details as long as the Westminster catechism."

One of the hopeful signs of the times, is the fact that steadily, though it be slowly, the people are becoming more intelligent upon sanitary matters.

The hope of sanitarians is rather in this increasing intelligence of the people which in time will come to the fore, and demand of the public authorities adequate provision for pure water, pure air and an inoffensive and innoxious method of disposal of waste material, rather than that the public authorities will take the initiative and lead the people to safer and more wholesome method of living.

As illustration of the slight hope of any steps toward sanitary reform by the municipal authorities of St. Louis, witness the repeal of the well-closing ordinance and the tardiness of the municipal assembly to provide for the removal of our water intake to a point above the highest sewer outlet of the city.

Let physicians strive in every way to increase the intelligence of their patients with regard to sanitary affairs. We heartily commend to their consideration the above "platform" proposed by the *Sanitary Era*.

To some of the "planks" of this platform we have elsewhere called the attention of our readers, and others will be more fully discussed hereafter.

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#### THE AMERICAN MEDICAL ASSOCIATION.

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The thirty-eighth meeting of the American Medical Association has lately closed its session at Chicago. The fifteen hundred physicians composing this body were on the whole a grand representation of the profession of the country. Their presence on this occasion proves that the American Medical Association is not a moribund institution; it shows that the profession at large fully appreciates the great work performed by the Association in the past, and that loyalty to and confidence in the American Medical Association still prevails among the rank and file of the profession.

The unfortunate dispute arising with regard to the International Congress has undoubtedly weakened the Association by withdrawing the sympathy and cooperation of many valuable members.

When the Association again meets in Cincinnati the International Congress will be an event of the past; the jealousies and bitterness aroused by those controversies will have become cooled, and the different parties will be able to review the past in a more generous, manly spirit. Mistakes have undoubtedly been made on both sides. The views of injudicious leaders have been blindly followed, and a partisan spirit has been allowed to prevail which resulted for a time in rendering questionable the success of an Inter-



national Congress which should be the pride and glory of the whole American profession. Already thoughtful men in the Association are beginning to see the result of hasty action, and regrets, which are not too late, will, perhaps, be valuable in the future guidance of the Association.

It is unfortunate that the next meeting of the Association should take place in the Mississippi Valley. Wisdom would have carried it closer to the Eastern seaboard where the great area of disaffection exists, and where an opportunity could have been given to those who have been dissatisfied with the course of the Association to again renew their loyalty and co-operation. The American Medical Association is not a Western or local association, and every effort should be made to retain its national character.

The evil result of the change made the last year in St. Louis, by which the sections were made to select their own officers, has been shown very clearly in the late meeting. The officers of the sections should be selected from the representative men of the different sections, and this can never be the case where the choice is left to the open section. The opportunities for packing the meetings are easy, and the ambitious politician and lobbyist can always assemble his friends in the desired number to elect him to the desired office. A return to the old manner of selecting the officers of the sections though a nominating committee will be necessary to retain the dignity and excellence in section work.

The greatest danger to the future complete prosperity of the American Medical Association lies in the existence of the special societies. These bodies, although undoubtedly essentially selfish in character, offer certain opportunities which are absent in a general association. The writer of a good paper is assured of an appreciative and critical hearing, and few men will venture before such an audience without having fully considered their subject. They are thus productive of better work.

Should the joint meeting of the various societies which takes place in September, 1888, result in an amalgamation of the various

societies in a Congress, it will prove a most formidable rival to the American Medical Association. The disinclination of many members of the various societies to give up their individuality will probably prevent the formation of such a Congress for some years at least, and it will be during these next few years that the fate of the American Medical Association, as a scientific body, will be decided. Should such a Congress be established it will undoubtedly draw the best men in the country into its ranks.

It behooves then, those having the well-being of the American Medical Association at heart to use every effort to improve the organization, and to eliminate from it all that is objectionable and detrimental. The proposition to mend section 2, of the constitution is a step in the right direction.

The formation of a general council, carefully selected from the state delegations, with the power to elect all officials, will add strength and dignity to the association, and it will eliminate from the session one of its most disturbing elements.

Earnest efforts should be made to induce the best men of the country to attend the meetings; and the association should insist that only men of established reputation and learning be placed in the positions of honor.

A rigid scrutiny of the papers proposed to be read before the sections is now necessary, and all inferior material should be rejected. The time of the sections is too often consumed by silly or bombastic papers. All sectional issues and everthing pertaining to political demagogery should be sternly repudiated, and efforts should be made to induce state, county, and city societies to send only their best men as delegates.

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THE CANADA LANCET publishes its June number in mourning, announcing the death of Dr. John Fulton for the last fifteen years its editor-in-chief and publisher. He died of typhoid pneumonia, Sunday, June 15, at the age of fifty years.

The editorial management will be in charge of Dr. J. L. Davison who has been connected with it for the last year and a half.

## BOOK REVIEWS AND NOTICES.

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SPHYGMOGRAPHY AND CARDIOGRAPHY. Physiological and Clinical. By ALONZO T. KEYT, M. D. Edited by ASA B. ISHAM, M. D., and M. H. KEYT, M. D. G. P. Putnam's Sons; New York and London, 1887. 8vo., pp., 229.

The late Dr. Keyt, of Cincinnati, as is well known to the readers of the *Cincinnati Lancet and Clinic*, the *New York Med. Jour.* and the *Journal of the Am. Med. Assoc.*, studied sphygmographic question by the aid of an instrument of his own invention, finally perfected in the "Keyt's Compound Sphygmograph." This is a *sphygmographe a transmission* in which water is used (instead of the more usual air), so constructed that tracings from two sources (heart and artery, or two arteries) can be registered simultaneously, and provided with a chronograph which writes fifths of seconds. The introduction to the present work is devoted to a description of this instrument, an account of its origin, and some (not very conclusive) tests in the comparative value of transmission of waves through water and through air, in instruments of this kind.

The problems to the solution of which the author has almost confined himself, are the ones most capable of study by this instrument. They are the relations in time of the different phases of the heart's action, especially the duration of that portion of the ventricular systole from the beginning of muscular contraction to the opening of the semilunar valves, the "presphygmie interval" of Keyt, and velocity of transmission of the pulse wave under different circumstances. However limited the range of these investigations, they are of great importance, not only in the fundamental study of sphygmography, but also in practical directions, as is shown in Part II, the clinical section, to which the author has devoted a great deal of intelligent labor.

The editor deserves credit, and commands the writer's personal thanks, for collecting and arranging in so handsome a volume, the scattered studies of Dr. Keyt, which are probably the most valuable American contributions to sphygmology.

G. B.



A TREATISE ON DIPHTHERIA Historically and Practically Considered, including Croup, Tracheotomy and Intubation. By A. SANNE, M. D., etc. Translated, Annotated, etc., by HENRY Z. GILL, A. M., M. D., LL. D., etc. St. Louis, Mo., J. H. Chambers & Co., 1887. 8vo.; pp., 956, cloth, \$5.00; sheep, \$6.00.

Having had the opportunity to read this volume from advanced sheets as it was passing through the press, we are glad to announce to our readers that it is now ready for the general medical public.

This is unquestionably the most complete work on the subject which has ever been published, and the subject is one which of late years has been forced upon the attention of physicians in all parts of the country with great power.

The questions concerning the real nature of diphtheria, the conditions controlling its transmission, its diagnosis and prognosis are practical to us all. These questions are ably discussed in this work of Mr. Sanné. Dr. Gill has not only done a favor to those who do not read the language of the author by translating his work into English but the notes and additions which he has made from his own observations and from other American sources have materially enhanced the value of the work.

A TEXT-BOOK OF PATHOLOGICAL ANATOMY AND PATHOGENESIS. BY ERNST ZIEGLER. Translated and edited for English Students by DONALD MACALISTER, M. A., M. D. Three parts complete in one volume. New York: Wm. Wood & Co., 1887. 8vo., 1118 pages, 289 illustrations. Extra Muslin, \$5.50; sheep, \$6.50.

As the three parts of this valuable work have been severally issued from the press of the publishers we have had the pleasure of calling the attention of our readers to them. There is therefore nothing for us to do now except to note the issue of the whole work in one volume. This is now the most complete treatise on the subject in the English language, and as such we commend it to our readers.

THE YEAR-BOOK OF TREATMENT FOR 1886. A Critical Review for Practitioners of Medicine and Surgery. Philadelphia: Lea Brothers & Co., 1887. 12mo.; pp. 304; cloth.

These annual reviews of the advances of therapeutics in different departments are becoming very valuable contributions to our medical literature. The most eminent English practitioners have been enlisted in this work, and the result is a carefully prepared résumé of the various therapeutic measures suggested by various practitioners during the year.

## REPORTS ON PROGRESS.

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### DISEASES OF THE NERVOUS SYSTEM.

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BY FRANK R. FRY, A. M., M. D.

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*Thomsen's Disease.*—The March number of the *Journal of Nervous and Mental Diseases* contains the report of a case of this interesting malady by Dr. Geo. W. Jacoby, of New York. His case is evidently typical, and part of the description of it conveys a good idea of the symptomatology of the affection:

Geo. H. Glenn, from Cape Vincent, Jefferson County, N. Y., æt. 24, painter.

The family history is unsatisfactory, and nothing important from an hereditary point of view is discoverable. He does not remember his parents, who both died when he was a child. He never had any brothers or sisters, and his only living relative is an aunt who is perfectly healthy. He thinks that his maternal grandfather had some nervous trouble. He is unable to assign any cause for his infirmity. The affection has existed as long as he can remember, and he is unable to recollect any time when he was perfectly well. He remembers distinctly that he could not participate in the out-door games of his comrades on account of stiffness of his muscles. He could not run like other boys, and was debarred from joining in athletic sports. He attempted to learn to play upon the organ, but was unable to make any progress on account of the clumsiness of his hands. What he particularly noticed was that all of his muscles were stiff, and that the execution of every movement was impaired. This was particularly noticeable after periods of prolonged rest. The first few movements always decidedly increased this stiffness, but then it gradually diminished and finally entirely disappeared, so that a perfectly free use of the muscles set in. This stiffness always reappeared after a pause or rest. All the voluntary muscles were affected, those of the upper as well as the lower extremities. Also the muscles of his face are involved.

When he attempts to whistle he finds difficulty in doing so. In mastication the muscles become stiff and rigid, and he is affected, as it were, with a temporary trismus. This stiffness was also noticeable in closing his eyes. Only such muscles or groups of muscles as were at the time employed would become thus affected, all the inactive muscles remained perfectly lax. This tonic contraction of the muscles was, as far as he remembers, never accompanied by any pain. He thinks that he was decidedly worse when a boy than at present. If in running he stubbed his toe against any hard protruding object, all the muscles of his body would stiffen up like a board, and he would fall, being unable to rise for several seconds. This does not occur now. At about the age of fourteen he began to learn his trade, and he attributes his improvement to being continually at work, for, he says, "moving around and working limbers me up," and "if I did not work now, but just kept quiet, I would be as bad as formerly." There were always periods of time during which he was better than at others. Mental influence did not have any effect upon his bodily condition. He says that he does not grow worse when thinking of it or when excited. I desire, however, here to remark that when I presented him before the members of the New York Neurological Society, he was decidedly worse than I had ever seen him before, and I attributed this circumstance to the mental excitement caused by this presentation, although he himself would not acknowledge the correctness of my explanation. He also noticed that his muscles were large in comparison to other boys', and was astonished and chagrined to find he had so little force in them. He also noticed a difficulty in bringing his eyes back to a certain point, and frequently after looking at some object situated far to one side for a short space of time, and then trying to look at something in front of him, he found that for a few seconds he would either not be able to see at all, or he would see double, but that by a shake of the head he would "bring his eyes around all right." About two years ago, after having been considerably troubled in this way, and upon regarding himself in the mirror, he found that his right eye was "turned in." In every other way he was perfectly healthy.

Status presens.—Patient is a person of medium height and strong bony structure. The shape of his body is normal, except in the exceedingly strong development of nearly all of the muscles. This at once attracts attention, being noticeable even with his clothes on.



When undressed he looks decidedly athletic. Particularly strongly developed are the muscles of the leg and thigh, those of the gluteal region, and those of the arm and forearm. The muscles of the shoulders and neck are also extraordinarily prominent. The entire appearance, excepting that of size, is, when undressed, herculean. The face, however, does not show any of this hypertrophy. If the patient is asked to execute any forcible movement such as forced flexion of the hand, of the arm, or of the leg, a tonic contraction of the exerted muscles takes place which lasts for some time after all influence of the will has disappeared. This tonic contraction is so great that for the time being all antagonistic movements are rendered impossible. This same phenomenon is observed after forcible closure of the eyelids, when he is unable to open them until after the lapse of many seconds. The power of the muscles stands in marked contrast to their enormous development, for it is easily shown to be decidedly diminished.

Fibrillary tremor in the muscles is sometimes present, but, besides this, I have twice noticed, once in the deltoid and once in the biceps, a lifting up and vermiform movement of entire groups of muscular fibres. There is also present a certain amount of muscular restlessness, so that the patient finds it difficult to sit quiet very long without moving about in his chair. Compression of the nerves or arteries does not produce any muscular contractions. The hypertrophied muscles are elastic and full to the touch, but there is nothing to be found which could be looked upon as an induration; the impression which they make upon the observer's hand is 'entirely different from the muscles in pseudo-hypertrophic paralysis. The joints are freely movable and passive movement does not produce any contractions of the muscles.

Mechanical Excitability.—The nerves themselves do not show any abnormal mechanical excitability; the muscles, however, show a marked exaltation in this respect. I have not been able, as Erb has in his cases, to produce any contractions by simple pressure with the fingers or by rolling the muscles between the hands, but the application of an Esmarch bandage (applied for the excision of a piece of the quadriceps femoris), produced violent tonic contractions of the muscles of the entire leg. If, however, the muscle is given a sharp blow, as with a percussion hammer, this mechanical hyper-excitability becomes very manifest. When such a blow is given, a deep groove is formed in the muscle, running for some dis-

tance from the point of excitation; it seems as if the parts on either side of the irritated portion rise up and leave the furrow between them. The rising up of the irritated fibres like a thick cord, as Erb describes it, does not occur.

Smaller muscles, the interossei for instance, contract as a whole, and the contraction lasts for some time after the excitation has ceased. The length of time which the first described groove persists is something remarkable, and I have repeatedly seen it last from twenty to forty seconds. All of the voluntary muscles which were examined clearly showed this phenomenon, some to a greater, others to a lesser extent.

The electrical examination was made with great care, and each experiment frequently repeated. Erb's cases were taken as guides.

Some of the affected muscles were carefully examined and compared with normal muscle examined under the same conditions, the latter specimens being obtained from a healthy man of about the same age and size as the patient. We quote some of the results of the examination:

"Transverse sections of the affected muscles revealed with 300 diam. the following facts, substantially in agreement with the statements and conclusions of Erb.

1. The muscle fibres were about double the size of those in normal muscle, or perhaps on an average even larger. The illustrations of Erb's two cases show an increase in the size of the muscle fibres to the threefold or fourfold.

2. The nuclei of the muscle-fibres were distinctly augmented.

3. The connective tissue around the muscle-bundles (external perimysium), and that around the single fibres (internal perimysium), was found distinctly augmented."

The following are the conclusions that Dr. Jacoby has reached as the result of his own and others' observations:

"Clinically, Thomsen's disease appears to be an affection of the muscles alone, and microscopically this probability is only confirmed. It seems also as if the result of the microscopical examination were capable of casting some light upon the intricate nature of this peculiar affection. There can be no doubt that this disease is a congenital malformation of the muscular fibres, as is proven by the augmented size of each individual fibre, and by the increase in the number of their nuclei and of the perimysium.

It is obvious that a considerably larger number of embryonic

sarcoplasts must have entered into the construction of each individual fibre than is the case in normal development. Such a muscle necessarily has a considerably larger number of sarcous elements, or which is synonymous, more contractile matter than a normal muscle, and that, therefore, the contraction of such a muscle is more liable to become exaggerated, as it were; or, in other words to become tetanic. This is plainly seen in the specimens obtained from my case, where clusters of sarcous elements are seen to aggregate to a close contiguity. In normal muscle, the motor nerves are known to terminate in the form of plates beneath the sarcolemma, but upon the surface of the muscle fibre. The continuity between the motor end-plate and the adjacent sarcous elements is established by delicate threads, and the continuity throughout the entire muscle-fibre is preserved by such filaments interconnecting all the sarcous elements in every direction, the interstices between the embryonic sarcoplasts not making any exception to this rule. Thus we conceive that the nerve-impulse, whatever this may prove to be, is transmitted from the motor nerve into the terminal plate, thence into the adjacent sarcous elements, and finally into all contractile particles of a muscle in a direct way, namely, by means of the connecting threads. In Thomsen's disease, the motor nerves and motor end-plates do not show any deviations from the normal. The nerve-impulse, therefore, is transmitted into the muscle-fibre in the same manner as in the normal condition.

The result of this reception of impulse will be a contraction which, especially after a certain rest, will be a hypercontraction, or rather tetanus. This tetanus leads to an agglomeration of a certain number of sarcous elements, with a break in the continuity of the contracted clusters, as can be plainly seen under the microscope. In consequence of this tetanus, the nerve-influence is inhibited for so long as the tetanus lasts. After the lapse of a few seconds, the tetanic contraction will subside, the continuity between the hitherto separated groups of sarcous elements will become re-established, and the propagation of nerve-influence again be rendered possible. If now in the light of our microscopical revelations, and in consideration of the above theory, we reconsider the objective symptoms found in Thomsen's disease, we are able to understand the production of a great many of them. That the muscle becomes tetanic under the influence of the will has been explained, that mechanical and electrical stimuli applied to the



muscles themselves produce a prolonged contraction is also understood, but how it is that stimuli applied to the nerve do not have the same action as those applied to the muscle is not so clear. This much is certain, that the cause for this variation must be sought in some change in the nerves themselves, and not in the muscles, probably a change in their molecular arrangement, for microscopically the nerve terminations appear normal, and it is after all possible that later observations may discover changes either in the peripheral or central nervous system, which will take this peculiar affection out of the domain of primary muscular disorders to which it now appears to belong."

Erb contributed in 1886 an exhaustive account of the disease, with a summary of cases. Up to that time no genuine case had been reported in the English language. Dr. Jacoby's is the first we know of thus reported. In this same article Erb defines Thomsen's disease as follows: "I understand by the typical form of Thomsen's disease those forms of disease which generally, under the influence of an hereditary or family noxiousness, already in very early youth show that disorder of movements which later becomes more pronounced, the occurrence after a period of rest, and during movements, of tension and stiffness of the muscles up to complete inhibition of movement, gradual dissolution of this tension by means of continued movement, until entire relief occurs, prolongation of the tonic contractions produced by energetic action of the will, and inability to voluntarily relax the muscles quickly. In connection with this a remarkably strong, hypertrophic development of the voluntary muscles, in direct contrast to their relatively small power. The muscles also showing certain characteristic changes in their mechanical and electrical excitability, particularly the prolongation of artificially produced contractions, all other functions being perfectly normal, the nervous system especially not showing any other disorder."

*Voluntary Passive Motion in Cases of Paralysis of the Extensors of the Forearm.*—DR. LEWIS D. MASON in the May number of the *Journal of Nervous and Mental Diseases* describes an ingenious and so far as we know novel method of having the patient practice passive motion of the extensors of the wrist and fingers. It consists of simply putting the forearm into a supine position (*i.e.* with the palm turned upward), and directing the patient to support it at the wrist

with the other hand; then having him alternately flex and relax the hand and fingers. When relaxed the hand falls by gravity (on account of the paralyzed extensors) into a condition of extension, below the horizontal plane of the arm, thus supine. When the flexors of the wrist and fingers are brought into play, it is lifted above this plane. In this way quite a range of motion is accomplished that necessarily exercises the feeble or paralyzed muscles. It possesses another great advantage in giving the patient something to do towards his own recovery or improvement. Any one who has handled even a few cases of "drop-wrist" knows how apt they are to become depressed and restless under the best devised plans of treatment, often getting into the hands of electrical frauds or other kind of charlatans, and thus losing valuable time, as well as their money and confidence in remedial agents generally. This method will immediately commend itself to the patients, and in the majority of instances be industriously employed by them. The writer has within the last few days inaugurated it in two cases with very apparent satisfaction to the patients.

*The Crime Class.*—DR. WM. DUFFIELD ROBINSON in a paper read before the Philadelphia Neurological Society, March, 1887, thus describes the *crime class*: "Among the general populace there is a distinctly divided class known by that descriptive title. In these the casual observer would see nothing characteristic. One experienced in penology can recognize a member of this class as easily as the native can an alien or a foreigner.

The major part of state prison offences are the acts of men born members of this class of the people. They are of a kind peculiar to themselves. They are one of the morbid excrescences of society, and in progeny reproduce their peculiar kind. As the cancer cell lodged in a neighboring gland develops a growth identical in make up with its parental source, so the offspring of the crime class belie not their parentage.

These people very seldom reform, but in death end lives passed in crime and infamy. They have absolutely as little control over their natural inclination to wrong-doing, as the confirmed periodical drunkard has over desisting from his spree. They are very seldom given to rum drinking, and rarely permit themselves to become intoxicated.

The proverbial 'honor among thieves' occupies little if any place

in their composition. They really see very little moral wrong in their crimes—the crime with them being in detection. They truly believe that the man who assists in their detection and aids in their being brought under the law is much worse than they themselves.

They do not believe in the existence of sexual purity, and are nearly all given to excessive, promiscuous venery. This applies to both sexes. While often in possession of large sums of money, it is very speedily squandered, so that they are nearly always without financial resources. They have little regard for their lives, and usually die without fear. Many are infidels, or nearly so. They form strong attachments, but usually of an easily transferable sort. They have representation from all grades of intelligence and education.

Crime is *unquestionably* a monomaniacal infatuation with them. Statistics, attested facts and direct attainable evidence clearly warrant this assertion. It is not an unusual case to have them acknowledge that they prefer the excitement of getting one dollar unlawfully to earning ten honestly.

The peculiar irregular development of intelligence in them is a surprising study. Some are exceedingly illiterate and ignorant, but possess a cunning and adroitness at deception that would compliment the wildest fox. This peculiar cunning has been studied by many observers. It is either the result of direct inheritance, or the outgrowth of a peculiarly studied deceit practised from childhood in avoiding merited punishment. Each has some special line of criminal work and he adheres to it through life.

Physically they are a bad job, but like bogus buildings for a time would pass well on slight inspection. Their crania, and intra-cranial contents are characteristic.

Twenty per cent, at the age of 40, have had syphilis. The worst component is their mental condition. Neurotic diseases are very common among them, epilepsy frequently exists, the different forms of mental diseases are developed in proportion far exceeding that common to the general inhabitants.

If the criminal, mental and physical histories of the antecedents of the true crime-class man can be learned, it is found in almost every case that there has existed sufficient cause for him to have inherited the impelling criminal tendency, of which he is possessor, and over which he has imperfect, if any control.



## SURGERY.

*Pepsin Treatment of Tumors.*—W. H. MORSE reports encouraging results from the parenchymatous injection of crystal pepsin (Jensen's), one part to three of distilled water, in cases of malignant and benign tumors, including carcinomata.—*Med. Register* March 12, 1887.

*Mammary Pain Relieved by Operation.*—M. ROUTIER reports the case of a young woman, æt. 21, who suffered from a painful affection of the breast. Following a contusion of the left mamma, this young woman experienced in one lobule of the gland a pain of neuralgic character, aggravated by pressure and also at each menstrual epoch. The affected lobule appeared like the others and was not increased in size. On palpation a sort of induration was felt which left the diagnosis uncertain between the existence of a tumor and a simple neuralgia. All medical means having failed, during a treatment which lasted for thirteen or fourteen months, the patient demanded relief by surgical measures.

M. Routier removed the painful lobule. The sequelæ of the operation were most simple. The wound healed promptly by first intention, and for more than a year since the operation there has been no return of the operation.

Microscopic examination of the portion removed has demonstrated the existence of a hypertrophy, consisting especially of the development of interstitial cellular tissue. There was, therefore, a new formation, the further development of which was arrested by the operation.—*L'Union Méd.* Feb. 15, 1887.

*Antiseptic Powder.*—M. LUCAS-CHAMPIONNIERE has used the following:

Iodoform, (sifted.)	} Equal parts.
Quinia, (powdered.)	
Benzoin, (powdered.)	
Carbonate of magnesia, saturated with essence of eucalyptus.	

Mix with care. This is applied directly upon the wound or preferably over a piece of protective. Then a layer of wood-wool, often a sponge, then the mackintosh and a bandage of ordinary gauze. In large operations this dressing is changed in three days; in minor ones it is left for a week.—*L'Union Méd.* Dec. 9, 1886.

*Extirpation of the Spleen.*—M. BIZIEL reports the case of a patient troubled for two years with a tumor in the left hypochondrium, with diarrhea and leucemia. In spite of the gravity of these morbid phenomena it was determined to extirpate the spleen. This was done through an incision extending from the xiphoid appendix to a point a hand's-breadth above the symphysis pubis. In spite of the elastic ligature of the pedicle hemorrhage occurred, and led to the application of several silk ligatures. The patient succumbed. This failure is the eighteenth which has been observed in the extirpation of the spleen in leucemic patients.—*Deutsch. Zeits. f. Chir.; L' Union Méd.* Nov. 9, 1886.

*Gonorrheal Mammary Abscess.*—W. J. SINCLAIR reports a case of mammary abscess in a hospital patient. Some pus from this abscess was examined, and cultivations were made and micro-organisms in great abundance were found, some of which looked like gonococci. Tube cultivations produced a development like that obtained by Bumm from the gonococcus. It was found on questioning the patient that she must have been infected with gonorrhea while pregnant. The infant was suffering from ophthalmia neonatorum which doubtless originated in infection from the mother's genital tract, and the mammary abscess must have been due to the extension along the milk ducts of an inflammation which originated in the planting on the nipple of colonies of gonococci from the child's eyes.—*Med. Chronicle* May, 1887.

*Sawdust Dressings for Wounds.*—DR. L. S. PILCHER uses and recommends sawdust as a material which combines all the desiderata for a wound dressing and is always available. It forms a comfortable cushion for the parts, is absorbent, does not cake, and favors the dessication of the discharge. Made into pads it is easy to handle, and is susceptible of complete purification. If fresh, it is naturally surgically pure, and could be applied at once to the wound. If to be preserved for a time it can be treated with a solution of sublimate and dried before using.—*Quarterly Bulletin*, Oct. 1886.

*The Mechanism of Indirect Fractures of the Skull.*—CHARLES W. DULLES, M. D., in a pamphlet of 84 pages reprinted from the Transactions of the College of Physicians of Philadelphia, gives the result of a very careful investigation of this subject with study of cases, from all of which he reaches the conclu-

sion that the supreme law governing the production of indirect fractures is that which depends upon the fact that the skull is practically a hollow elastic case, approximately oval in shape, and which may be formulated as follows: When a sufficient force is applied to any curvilinear part of the skull, if this part do not give way immediately, the axis of the skull lying in the same line as that of the applied force is shortened; all the axes lying in planes at right angles to this line are correspondingly lengthened, with a proportional lengthening of their circumferences, and separation of their meridians; so that the direct depressing force is converted into an indirect disruptive force acting at right angles to the direction of the former. The effect is to produce a fissure or fissures, which will have a general meridional direction.

The application of this law is subject to certain modifications due to the anatomical and architectonic peculiarities of the skull, its coverings and contents, and to certain exceptions due to the amount and velocity of the force applied as well as to the coming into play of peculiar counterforces.

*Resorcin Inoculations for Phlegmons Especially of the Fingers.*

—DR. LUDWIG WEISS reports a number of cases in which he has had the very best of results from the use of resorcin in the treatment of phlegmonous inflammations, especially those of the fingers, resulting from punctures or lacerations of the nail-fold or of the bed of the nail itself. These apparently insignificant lesions becoming the portals of entrance for septic material are not infrequently the cause of great suffering and serious trouble.

In the treatment of such cases Dr. Weiss recommends the use of a 10 to 30 per cent ungent, the base preferably being lanolin. Wherever the original lesion may be located he scarifies the area involved, making a number of small incisions parallel to the direction of the axis of the finger, when made at the tip and at right angles to it when on the nail-fold. These incisions should be superficial, hemorrhage, no matter how slight, being unnecessary and harmful. Cocaine may be applied before the scarification, if necessary. The salve is then applied abundantly and a strip of lint is closely wrapped around the finger the salve being applied to this also till thoroughly saturated. Gutta percha tissue is wrapped around this. A layer of absorbent cotton and a moist gauze bandage complete the dressing, which should be renewed



once or twice daily according to circumstances. The scarifications being sufficiently numerous to secure absorption of the resorcin, the pain and tension are noticeably relieved in six to twelve hours. Early application is necessary to success.—*Med. Record*, Nov. 27.

*Cocaine with Lanoline*.—ERNEST WENDE finds lanolin a most valuable base for cocaine applications. In cases of burns and scalds he has had excellent results from a four per cent application which both relieves the pain and protects the surface from the air. *Med. Press*, Dec. 86

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#### FEHLING'S SOLUTION.—

##### Solution A.:

R <sub>y</sub>	Cupri sulphatis, (cryst.)	-	-	-	-	gr. 181.
	Aqua,	-	-	-	-	ad.    ʒ vi.

M.

##### Solution B.:

R <sub>y</sub>	Sodæ potass et tart.,	-	-	-	-	gr. 728.
	Sodæ (caust.)	-	-	-	-	gr. 400.
	Aquæ, q. s. ad.	-	-	-	-	ʒ vj.

M.

When Fehling's solution is required, mix equal quantities of the two solutions.

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DR. ALFRED MEADOW died suddenly in London April 19, at the age of fifty-five years. He was well known in this country as well as his own, as an eminent obstetrician and as a teacher and writer in that department of medicine. His death is said to have been due to heart-failure caused by acute abdominal pain.

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NEEDLE IN THE HEART.—In making an autopsy on the cadaver of a man who had died of Landry's paralysis, on incising the heart a fragment of iron, 8mm. in length, apparently a piece of a needle, was found embedded near the apex. It had lain there a long time, being partially oxidised.—*Med. Chronicle* May, 1887.

## SOCIETY PROCEEDINGS.

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### ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

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Stated Meeting, April 21, DR. ENGELMANN, Vice-Pres. in the chair.

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*Dr. G. A. Moses* read a paper on

PLACENTA PREVIA. (Vid. p. 1).

*Dr. Engelmann.*--Dr. Moses has touched upon subjects which are of paramount interest, the treatment of placenta previa, the subject of transfusion, and he has hinted at one which might well come before us, that is the use of corrosive sublimate. The subject is now open for discussion.

*Dr. Yarnall.*--The subject is one of great interest to me, because I have had a very remarkable experience. Three weeks ago I attended my thirty-ninth case of placenta previa. I was assisted by Dr. Moore, and a midwife, in the last case, and I have now seen three cases with this same midwife.

It strikes me that the most important question here is what course should be pursued in extreme cases. In the majority of cases which I have seen I have been called in when the patients were *in extremis*. Then the question would arise whether or not it was proper to tampon the vagina, and try to save the patient, or whether we should proceed to deliver at once. I had the good fortune to save the first nine cases that occurred in my practice, and also to save eight of the children; and I then came to the conclusion that I had discovered the proper course to pursue, that is, to proceed at once without delay to deliver the patient. Of the next seven cases which I met with, six of the patients died. Then I came to the conclusion that the method which I had pursued was not such a perfect one; afterwards I think I lost one patient in about four or five.

Dr. Maughs in his paper, if I recollect correctly, advocated the idea, that in cases where there had been a great amount of hemorrhage and the patients were pulseless, we should place in the vagina the tampon and then wait until the patient was in a better condition. The method I pursued in the early part of my practice was to thrust my hand through the os, dilate and deliver, no matter what the condition of the patient might be. Having very favorable results I came to the conclusion that this was the only true method to pursue. Afterward, having unfortunate results, I modified my view, and came to the conclusion that it was an error to undertake to deliver in cases where the woman was pulseless until we succeeded in restoring the circulation and building her up somewhat. In the first case that I met with, which occurred just after I graduated, the woman was pulseless when I first saw her; I thrust my hand through the placenta, grasped a foot, and delivered the woman, who was unconscious at the time, and it was ten or fifteen minutes before she was restored. She, however, made a very happy recovery. Following that, I treated six cases in which I was more or less successful, and the success was sufficient to lead me to think this was the only true method, to proceed to deliver no matter what might be the condition of the patient. I do not recollect having lost a single patient until an hour or two after the delivery; and in most cases it seemed to me that it was brought about by embolism. I recollect one case which I reported to the society, in which I delivered a woman at 8 o'clock, I saw her at 10 o'clock, and her pulse was fairly good at that time. An hour after they sent for me, and I found her dead when I reached the house. There had been no hemorrhage, and her pulse had been fairly good two hours after the delivery. I remember this case was fully discussed by this society, and the gentlemen came to the conclusion that she died of embolism. In many of these cases the patient suddenly suffers a collapse two or three hours after delivery, even when no hemorrhage can be discovered.

Now in a difficult case the question always arises, what is the proper course to pursue? whether we should deliver or should tampon the vagina and wait. My opinion is that, taking these cases all in all, unless the patient is absolutely pulseless, the proper plan is to undertake delivery as early as possible. There is another fact which seems remarkable, which the doctor has mentioned, that when you undertake to detach the placenta, to pass your hand be-



yond it, it seems to spread over an enormous surface; you can reach the finger around as far as possible without finding the margin of the placenta. I saw a case with Dr. Barret shortly before his death; his hand was crippled, and he got me to go with him to see the case, in consultation with some medical gentleman in the southern part of the city. I swept my fingers around in all directions, but I could not find the margin of the placenta. However, after detaching it, we waited for some little time, and then as the hemorrhage had ceased, we left the medical gentleman in charge of the woman; and he delivered her himself with practically no hemorrhage following it. In several cases I have known that to occur after separating the placenta before labor was fairly established, and the patients have been delivered without subsequent hemorrhage. The placenta seems to be spread over a vast surface, and in cases in which the hemorrhage is very great we sometimes find it almost impossible to reach the margin of the placenta so as to break the membrane beyond the margin. I don't see how, except in marginal implantations, you can deliver with forceps at all. In that case you have to perform version as there is no other method. It is one of the most formidable conditions that we have to deal with, one which is extremely alarming.

*Dr. Boisliniere.*—I will only relate my personal experience. I have not seen many cases of placenta previa, but I had one patient whom I attended in five cases of placenta previa, and she stated that she had had two cases of placenta previa in Richmond, Virginia, and in all these cases the breech or trunk presented.

*Dr. Yarnall.*—I delivered one woman three times.

*Dr. Boisliniere.*—This case in which the condition occurred seven times also tends to confirm the opinion of some writers that unfavorable presentations of the child are one of the causes of placenta previa, transverse presentations. We must admit that we do not know the cause of placenta previa. There are innumerable theories to explain why the placenta is inserted at the orifice of the neck or near it, but I will not mention any of them. This woman recovered without any difficulty. The hemorrhage was very great of course; labor was tedious, as it always is when labor is premature, and I treated her by the method suggested by Dr. Moses and Dr. Yarnall, by tampons, and ruptured the membranes as soon as I could with my fingers. The reason why the tampon is condemned by some is because it is not properly placed. There are different methods of using the tampon.

*Dr. Yarnall.*—Suppose a woman were in labor and pulseless, how would you proceed to deliver her?

*Dr. Boisliniere.*—If there was considerable hemorrhage, alarming hemorrhage, I would tampon the vagina first; and as soon as the tampon was removed, I would insert my finger and detach the placenta so as to make room for the finger and rupture the membrane. The implantation may be such that it will cover the mouth of the womb; in that case I rupture the membrane with a female catheter, and empty the water in this way; that is a very good method. As Dr. Yarnall has stated, in placenta previa the placenta seems to occupy an unusually large amount of space; and some writers have observed that in placenta previa the placenta does not weigh so much as ordinary placenta, that it extends over a large surface, but it is very thin, therefore it is not difficult to rupture it. There is this objection to rupturing the membrane, that you may have more difficulty after the waters have escaped. There are two periods when version is comparatively easy, one before the rupture of the membranes and the other in very protracted labor when the uterine contractions have ceased from exhaustion. Barnes has made a very good remark in regard to turning, and that is that you must be exceedingly careful how you manipulate, remembering the greater vascularity of the organ where the placental site is. The uterus is certainly thicker by one-fourth where the placenta is than at any other part, therefore the neck of the womb is very vascular, very thick, hence there is great danger of hemorrhage from the laceration of these spongy tissues of the neck of the womb, and it is from these structures that secondary hemorrhage after delivery of the placenta occurs; therefore in turning it is necessary to be careful not to rupture these tissues about the neck of the womb. As soon as the tampon has been in twenty-four hours, I would proceed to deliver the child; if the insertion is marginal with the forceps; if it is central, or only partially covers the mouth, then by version. I have followed this rule in all the cases that I have had. I remember one case of placenta previa, which Dr. Gregory saw also, a frightful case in a strong Irish woman, she was a great deal stronger than I am. I found it impossible to restrain her so as to keep her in bed, and her husband, seeing me trying to put his wife to bed; ordered me out of the house, and Dr. Gregory was called in.

*Dr. Gregory.*—That patient died.

*Dr. McPheeters.*—This woman whom you attended five different times for placenta previa, at what period of gestation was it?

*Dr. Boisliniere.*—They were seven months children; all died, and all were transverse positions except one which was a breech. I wish to enter my protest against the inefficient method which is often practised in applying the tampon in these cases.

*Dr. Gregory.*—Have you ever used prepared wool for a tampon?

*Dr. Boisliniere.*—No, but I would not hesitate to use it.

*Dr. Gregory.*—I have been using it for some time.

*Dr. Papin.*—I am forcibly reminded of a meeting that I once attended in the city of Paris, at the annual meeting of the St. Vincent De Paul Society, the Archbishop of Paris presided, the orators of the evening were both noted as being probably the most eloquent men in the city. After they had made most eloquent appeals to the audience on the subject of charity and especially Christian charity, they sat down, and it became the duty of the Archbishop to make a résumé, and he got up and said: Gentlemen, what these two gentlemen have said to you is what I would have said. So I feel about this discussion. I fully endorse what Dr. Boisliniere has said on the subject of tampons. I remember delivering a woman with placenta previa some years ago. She was in about the seventh month of pregnancy; the os was somewhat dilated but not dilatable; there was a central implantation of the placenta. I detached it as far as possible with my finger, and after thus arresting the hemorrhage I left, the attendant physician promising to stay with her. As a matter of safety I tamponed the patient, using a Sims' speculum. I put her on her left side, and used balls of absorbent cotton moistened with a weak solution of alum; I packed them in thoroughly like figs in a drum, filling the cul-de-sac anteriorly and posteriorly. I used an enormous amount of cotton, and left her in this condition. As soon as I left the house, the attendant physician found her pulse coming back, and he left her with a midwife. We both reached the house again at 5 o'clock. We heard the last throes of labor going on, and when we reached the lying-in room she had given birth to the child and placenta, and preceding them, of course, came the tampon; and so thoroughly had it been packed in that it absolutely looked like a drum of figs.

The case of Dr. Boisliniere, which he delivered five times with placenta previa each time, recalls a case that I saw, in which the patient had this condition three times. The first time I delivered her there was a partial implantation, and she had a fearful hemor-



rhage, the case gave me a great deal of trouble. This was the second time she had had this condition. Not more than a year afterwards they again called for me to attend her, and her husband told me she had had a hemorrhage: and having just promised to go in another direction I requested Dr. Yarnall to attend this patient, and it is one of his thirty-nine cases. This was the third time she had placenta previa.

*Dr. Hulburt.*—During this last week a report appeared in the journal of two cases that I have had at the hospital, in which I assume a position which possibly may be misunderstood. I try to make it appear that under certain conditions, which I try to explain, I advocate a certain line of practice in placenta previa, and that condition was after we were in a position to determine that labor was threatening or had commenced, which is very difficult to arrive at, because nearly all of these cases I think occur previous to term; however, I took the position unfavorable to tampons and in favor of the Barnes' dilators. I took the position that it was the duty of the physician under those circumstances to remain with his patient until she was delivered, that it was a time for action and not procrastination; that after dilatation had been carried far enough so that the hand could be introduced without danger of laceration, which is so apt to occur in these cases, then I feel that the best plan is to introduce the hand and separate the placenta on one side, puncturing the membranes high up, bringing down a foot through the cervix, engaging the buttocks, and from that point stop interference and allow the delivery of the child to occur unaided, simply meeting the indications given us by nature. After the delivery of the child proceed immediately to deliver the placenta, and follow that with the antiseptic douche both uterine and vaginal. Of course this plan is to be adopted after we have reached the determination as to whether the woman is in labor or not. I feel that if the child is viable it is a serious question to determine whether we shall dilate or not. Placenta previa is a fearful complication to my mind. After I have had more experience I may think differently. I never think of a case of placenta previa that I do not feel more or less alarmed; and whenever I have a patient out at the hospital who has a serious hemorrhage, and there are indications of a repetition of the hemorrhage, I feel that I should at once proceed to deliver the patient. In other words I feel that I should induce labor and complete the

matter right then and there and not procrastinate. I think we are just as fully justified in following that line of practice in placenta previa, if not more so, than we are in a case of contracted pelvis. I don't see much difference between craniotomy and placenta previa. One of my cases died from septicemia; the other case died from shock. In the second case I didn't use Barnes' dilators and the cervix was lacerated. She was a young, impressible girl; and I think perhaps I forced matters too far and the amount of shock in the case resulted in death. She did not die from hemorrhage; she was in an excellent condition when I started to deliver her; the cervix was dilated to the size of a silver dollar and seemed to be perfectly dilatable, not rigid. I tried to be as careful as possible. I don't think there were over three or four hundred cubic centimetres of blood lost, yet she died within an hour after delivery.

*Dr. Engelmann.*—I am very thoroughly impressed with the line of treatment to be pursued in these cases; and I think that I fully agree with Dr. Yarnall; but it is extremely difficult to state and to describe just when to deliver. Dr. Yarnall says deliver at once. Well, I think that is correct, but of course each individual case must tell us when the time to deliver has arrived, and perhaps individuals differ in regard to their judgment of that time; but I think that where delivery is feasible without danger, that is the course to pursue, and before that we should use the tampon. I feel precisely as Dr. Boisligniere does about the tampon—it should be applied thoroughly. The tampon is a most effective remedy when properly used. I have seen two cases in my own practice and two or three cases in consultation. Two of these had been tamponed when I was called to see the cases. They told me what had been done, and I felt that the case was desperate, because the doctor had done what was right, he had tamponed; but when I saw the patient and removed the tampon, I found in one case a bit of wadding and a handkerchief, and in the other about as much. Now I have been taught to tampon as a routine treatment until delivery is possible, and the tampon is almost always effective; the result is a beautiful one, if we tampon with a material that is non-absorbent and elastic; and for that purpose ordinary cotton or sheep's wool are excellent. I should not like absorbent wool. The ordinary cotton or sheep's wool is an elastic, non-absorbent material. The first tampon is placed with the speculum, if possible crowded into the os; if that is

not possible, then against it; and if we can reach any part of the placenta, the first tampon saturated with a mild solution, perhaps about a ten per cent solution of perchloride of iron, or I have used vinegar with the fluid squeezed out; the first two tampons pressed firmly against the bleeding part; in order to make the expulsion of the tampon easier, a few of the next tampons should be coated lightly with lard, which prevents the absorption of the blood and causes them to retain their elasticity much better. The speculum is then gradually withdrawn, the vagina accurately and firmly tamponed. The bleeding then stops, and the patient is left until the expulsive pains throw out the tampon, and with it you will often have delivery following, and if not you are in a position to deliver. Now, if you have bleeding without proper dilatation, or without any dilatation, so that you cannot deliver, tampon in that way, and the patient has a rest for a time; the bleeding stops; she realizes that there is a change in the pelvic viscera; the pains may cease for a time, but when they begin again with this additional resistance, they become more powerful, and they will throw out the tampon; if they do not do that, and the pains are powerful, remove it after four or five hours, and if nature does not deliver the patient, you are certainly in a position either to apply the forceps or to turn. If the os is dilated so that the hand can be inserted when we are called to the patient, turning and tamponing with the buttocks is the correct thing. I think we should tampon under all circumstances if we come to the patient before the os is sufficiently dilated to insert the hand. If the hand can be inserted, turn and tampon with the buttocks, and then allow nature to complete the delivery; certainly I would not force the delivery at that time, because it would be difficult to deliver the woman, and you run the risk of having a dead child; but if you draw down the hips and tampon with them and leave things in that condition, you have a somewhat similar condition to that which we have when we use the cotton tampon; there is a rest and then increased pain and expulsion. The tampon is a most excellent remedy, but it is rarely properly applied, and for that reason it has fallen into disuse. As for Barnes' dilator taking the place of the tampon, I can not believe it possible. The only place that the Barnes' dilator will be serviceable is where you can insert it into the uterus and let the central part of the dilator remain in the os; then you may make a most effective tampon.

*Dr. Yarnall.*—Where is the placenta?



*Dr. Engelmann.*—I have never used the Barnes' dilator in these cases. Dr. Moses spoke of it. It strikes me, if you have a marginal insertion, under the circumstances I have mentioned, it would be a very efficient instrument, if the case happened to be such that you could place the dilator partially in the uterus and partially out of it. I presume this is a limited class of cases. I think, if it is possible to insert the hand and turn and tampon with the buttocks, then allowing nature to proceed, that that is the best method; if it is not possible then tampon with cotton or sheep's wool.

*Dr. McPheeters.*—In a practice of forty-five years I have met with but one case of placenta previa, and that was not a central implantation, but a marginal or partial one. The case occurred on Wash street between Eighth and Ninth streets. The hemorrhage was fearful, and while I was preparing my tampon, nature came to my relief, the pains became very active, the head engaged in the upper strait and the hemorrhage stopped to a very great extent, but not entirely, as there was a constant oozing, but not such as it had been before, by which the patient was very greatly prostrated. I made an examination and found the os dilatable, and that the placenta was partially detached, so I concluded to wait, the hemorrhage being slight. Delivery was accomplished naturally and both mother and child were saved. In that case the head of the child acted as a tampon.

*Dr. Hulburt.*—I would like to ask Dr. Engelmann if he thinks it is possible for a Barnes' dilator to remain in the cervix unless the constricting part grasps the narrow part of it?

*Dr. Engelmann.*—That is the theory I went on when I stated that was the only condition in which I believed it can be used, if it can be so placed, but I have never seen a case of placenta previa with a central implantation since I have been practising; they have all been marginal, where it was readily possible to pass to one side.

*Dr. Hulburt.*—I simply want to say a word in favor of the Barnes' dilator. I fail to see any reason why Barnes' dilator can not be inserted in a case of placenta previa, and why they cannot be effectually inserted. I think if we pursue the plan laid down for us by Dr. Barnes, there is no difficulty whatever. Of course the old model of Barnes' dilator is not as good as the recent one, but we have to bear in mind that we have an elastic body that is easily followed, and by detaching the lower attachment of the placenta around the

cervix we make an opening for it, and they can be introduced and the placenta separated. I don't think there is any difficulty in using the dilators for inducing premature labor. They can be inserted in the cervix without trouble and with the double dilator, which consists of two dilators simply fastened together without the finger pocket at the end, we get a double dilatation. In regard to the tampon I will say that I am somewhat afraid of it. I am imbued very largely with hospital experience, and septicemia is our pest and something we have constantly to contend against. I have used the tampon rather extensively, not in cases of this character, but I believe I know how to apply a tampon, and I certainly have applied them very effectually by the method detailed this evening, and in other ways; and I have used iodoform, I have used antiseptics, but my experience has been that when I have used the tampon there has been danger of septicemia. I attribute the ill effect in the first fatal case of septicemia which I had, to the use of a tampon, although I believe in that case it was not applied as effectually as it might have been; I took a piece of lint thoroughly oiled outside with carbolized vaseline, and spread it up against the cervix and packed in two roller bandages six yards in length, two inches wide; and while this does not weigh quite two pounds it occupies quite a considerable space. I consider that woman was effectually tamponed; there was oozing around outside, but not enough to cause difficulty.

*Dr. Coles.*—In that case the child was dead?

*Dr. Hulburt.*—Yes, that is very true.

*Dr. Engelmann.*—With regard to the danger of septicemia, I will say that I have seen at least a dozen or more cases of placenta previa in hospital practice, and the treatment which I mentioned was the routine treatment; those were our directions; we did not choose with regard to it; and the larger number of those cases occurred among the poor; and I have never known of a case of septicemia resulting. But I saw a case which died from hemorrhage in which we were called in too late. The tampon invariably stopped the bleeding, but frequently the patient was transported a mile or two to the hospital in that stage; but where the cotton is kept in the hospital and not carefully kept, used perhaps the second time, it may be dangerous, but I have never seen any ill results.

*Dr. Scott.*—I have never had a case of placenta previa, fortunately, although I have had a pretty active obstetrical practice, and

have had some very bad cases. I never want to see a case of placenta previa. I came here tonight to learn from the members of the society what I should do if I do meet with one, and I was anxious to hear discussed to night, not only how to treat placenta previa at term, but whether we should ever produce abortion; whether we should bring on premature labor at the first hemorrhage, is a question I should like to hear discussed. Whether it is better to wait, using tampons. I am conservative in my practice, and I am inclined to think that I should wait as long as possible in a case of placenta previa. Even if the child was viable, in the seventh month, I would wait and give her the benefit of the use of the tampon.

*Dr. Boisliniere.*—Of course I endorse what has been said in regard to the use of tampons; they are exceedingly useful. I remember having heard of a doctor, who being at a loss for something to tampon with, took off his wig and tamponed with that. Tampons are excellent, but in post-partum hemorrhage, if the hemorrhage comes from a lacerated cervix, when the uterus is contracted, I think the proper thing to do is to use styptics and after that the tampon on the cervix, with the intra-cervical tampon, and secure very firm contraction of the uterus with the hand and a binder.

*Dr. Glasgow.*—I would like to say a word in favor of absorbent cotton. Dr. Papin admits that he has used it when he could not get any thing else. I think we may go further, and say that we may use it in preference to anything else. If it is rightly prepared, as Dr. Papin used it, that is pledgets soaked with a weak solution of alum, and squeezed out, I think it is as effectual as anything we can put into the vagina; certainly no blood will come through, and if you add a little carbolic acid to the water and sprinkle it over with a little iodoform, I know you can leave it forty-eight hours, and it will be as sweet as when you put it in. I think absorbent cotton applied in this way is not only to be used, but is preferable to anything else.

*Dr. G. A. Moses.*—I only desire to add a few words on some of the points that have been raised. Some one referred to the method of puncturing the membrane through the placenta. Puzos recommended that. It has been done so often with disastrous results that I think it is not gaining favor. I don't see how under any circumstances I would attempt it. It is certainly not one of the



methods considered valuable now. A very interesting point has been raised as to the comparative value of Barnes' dilators as agent against the tampon. It seems to me that there are circumstances in which one may be preferable to the other. It is impossible to make an inflexible rule of action in every case. The tampon is certainly the more generally valuable. We can use the tampon where we cannot use the dilator. In order to place the dilator properly we require an assistant. When I first attempted to apply the packs I was very much deceived. I found it very difficult to introduce them, but I have since found that it was like a man trying to use forceps, it was because I had not had sufficient experience. I agree with Dr. Hulburt that if we want to tampon to arrest hemorrhage, Barnes' pack is perfect. It has another advantage, it is free from discomfort. It has probably this disadvantage, that it requires the presence of an attendant as long as it is there; because he does not know when the dilatation may proceed to such an extent as to expel the pack and require further tamponing. He can put in the tampon and leave the patient, but he cannot do this with a pack. So that both methods have their advantages under different circumstances, but if we were obliged to do without either I would do without the pack.

In reviewing the whole matter very carefully and reading the latest writers on placenta previa, I am obliged to come to the conclusion that we have made but little progress in the matter; we adopt the same rules now that were adopted by the earliest writers; Smellie did as well as we do. The account Smellie gives of placenta previa and how to treat it is very interesting.

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#### MISSOURI STATE MEDICAL ASSOCIATION.

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The thirtieth annual meeting of the Missouri State Medical Association was held in Macon City, Mo., May 10, 11 and 12, 1887.

The Association was called to order for its first session by its president, Dr. J. W. Jackson, at 11:15 A. M., Tuesday, May 10, and prayer was offered by Rev. Ethelbert Talbot.

Reports were offered from the Committee of Arrangements and from the Committee on Credentials, the latter reporting the registration of forty-five members. The treasurer's report was also read and referred to an auditing committee. Attention was here called to a communication from Dr. R. J. Duglison,

chairman of the finance committee of the International Medical Congress, requesting an appropriation from the treasury of the Missouri State Medical Association toward defraying the expenses of the Congress. On motion, a committee was appointed to consider the matter, said committee consisting of Drs. Sloan, Lutz and Allen.

The afternoon session convened at 2:30 o'clock. The auditing committee reported favorably upon the accounts of the treasurer. The Committee on Scientific Communications reported that fifteen papers were to be presented at the meeting. Under suspension of the rules of order of business the amendment to the by-laws offered by Dr. E. M. Nelson at the last annual meeting was presented for action.

The resolution was as follows:

"RESOLVED, That no paper shall be received by the Missouri State Medical Association, or published in its transactions, unless such paper is ready to be placed in the hands of the secretary immediately after reading the same."

Dr. C. A. Thompson moved its adoption and Dr. Halley seconded the motion.

Dr. J. W. Thompson offered an amendment that members reading papers should be allowed a few more days in which to make their papers more presentable.

Dr. Halley and Dr. Lutz held that the discussion which might follow the reading of a paper would be rendered unintelligible if a member were allowed to modify and remodel his paper after such discussion had occurred.

Dr. Thompson then withdrew his amendment and the by-law was then unanimously adopted.

Reading of papers was now in order and the first paper presented was that of Dr. B. F. Wilson, of Salisbury, entitled "Neuro-Therapeutics," *Vid.* p. 11.

Dr. J. H. Thompson, of Kansas City, then read a paper entitled, "Three Interesting Cases with Remarks Demonstrating the Practical Applicability of the Theory of Bacteriology." This paper called out quite an animated discussion.

Dr. H. H. Middelkamp, of Warrenton, then read a paper on "The Personal Qualifications of the Surgeon."

Dr. Tinsley Brown, of Hamilton, read a "Report of a Case of Biliary Calculi, with Absence of Gall-Bladder." (*Vid.* p. 15).

A paper by Dr. B. F. Hart, entitled, "The Proper Food of Infancy and Childhood, and Needful Sanitary Environments," was read by title.

At 7:30 P. M., a public meeting was held at which addresses were made on behalf of the Committee of Arrangements by Dr. T. B. Jackson, as representing the mayor of the city, by Capt. B. E. Guthrie; for the Board of Trade of Macon, by Col. John F. Williams; while Dr. Woodson Moss, of Columbia, responded for the Association.

Dr. J. M. Allen, of Liberty, delivered an address on "Public Health," he being Chairman of the Committee on State Medicine. Quite a spirited discussion followed the address which occupied all the rest of the evening hour.

Wednesday, May 11. The morning session commenced at 8:30 o'clock. Dr. C. A. Todd, Chairman of the Committee on the Anatomy Act, made his report, printed copies of which were distributed to the members. As being, probably the most important matter brought to the notice of the Association, we here present this report in full:

TO THE MISSOURI STATE MEDICAL ASSOCIATION.—The committee appointed at the last session of your body, to draft a Bill for the greater encouragement of anatomical study, is able to report a successful issue to its labors. A copy of the new Act, as it now stands on the statute book, is printed with this report. The Bill was passed very nearly as draughted, which was a most agreeable experience, as some of the provisions, while not at all unreasonable, might appear to the general public as putting a great deal of authority in the hands of the profession.

This gratifying success can be best explained by giving a brief history of the movement. The Committee, acting under the authority of the State Association, made a careful canvass of the state. Circulars were mailed to all the doctors; local societies were requested to lay the matter before their members; and members of the Committee, when practicable, attended society meetings for the same purpose. In addition, a "Demonstrator's Association" was organized to enlist the different medical colleges in the state; the circulars issued were indorsed, consequently, by all of the colleges, thus averting suspicion of any sectarianism. This scheme was of the greatest value, and the Committee feels much indebted for the harmonious and active support of the different Faculties.



In the circulars, it was particularly urged that the doctors should enlist the support of the members of the Legislature from their respective districts before they should leave for the Capital, so that the Bill should be fully understood, and delays and uncertainties thus be avoided. The profession so cordially responded to this appeal, that members interviewed at Jefferson City remarked, they could not think of returning home without having voted in favor of the doctors' bill. Undoubtedly the passage of the bill is due to this universal support on the part of the profession over the state. The result is a gratifying testimony to what we can do when united and resolved to carry a measure that is for the public welfare, no less than for own advantage.

Hon. Edmund A. Donelan, M. D., of St. Joseph, introduced the bill at the Capital, and gave it his unremitting attention; the exceeding value of this support on the part of the veteran statesman cannot be over-estimated. The friends of the Bill in St. Louis took the opportunity of a visit to that city by Dr. Donelan, to present to him a testimonial of their appreciation of his labors. Dr. Charles A. Thompson and Dr. Robert E. Young, of Jefferson City, also gave most effective aid. The profession is much indebted to Mr. E. B. Ewing, editor of the *Jefferson City Tribune*, the official paper of the state, for his continued support of the bill, both through the columns of the *Tribune* and by his personal influence. The physicians who were members of the Legislature took the bill in charge, and by their forcible exposition of its character upon the floor secured its passage through the House, where it first appeared. The different medical journals of the state kept the subject before the public, besides distributing copies of the bill to their subscribers. By these various means it can be seen that great forces were combined to secure the passage of the Anatomy Act. The Committee firmly believes that the profession generally will derive an amount of benefit from the workings of the Act that will amply justify all effort in its behalf.

The expenditure of money incurred through printing and mailing of circulars was met by the "Demonstrator's Association," an assessment being agreed upon by the representatives of the different medical colleges. Other expenses, such as were incurred in visiting the Capital and local societies, were at private cost; this was

made a rule by the Committee at the outset. Respectfully submitted,

C. A. TODD, M. D.,  
J. D. GRIFFITH, M. D.,  
J. W. HEDDENS, M. D.,  
E. R. LEWIS, M. D.,  
W. A. McCANDLESS, M. D.

Committee.

AN ACT.—For the Promotion of Medical Science by the Distribution and Use of Unclaimed Human Bodies for Scientific Purposes, Through a Board Created for That Purpose, and to Prevent Unauthorized Uses and Traffic in Human Bodies.

Be it enacted by the General Assembly of the State of Missouri, as follows:

SECTION I. That the professors and demonstrators of anatomy of the medical colleges and schools of the State of Missouri, which are now or may become hereafter incorporated, shall be and hereby are constituted a Board for the distribution and delivery of dead human bodies, herein described, to and among such persons as under the provisions of this Act are entitled thereto. The said Board shall have full power to establish rules and regulations for its government, and to appoint and remove proper officers, and shall keep full and complete minutes of its transactions. Records shall be kept under its direction of all bodies received and distributed by said Board, and of the persons to whom the same may be distributed; which minutes and records shall be open at all times to the inspection of each member of said Board, and of any circuit attorney of any county within the State of Missouri.

SEC. 2. Superintendents or wardens of penitentiaries, houses of correction and bridewells, of hospitals, insane asylums and poor houses, and coroners, sheriffs, jailers, city and county undertakers, and all other state, county and city officers, in whose custody of the body any deceased person required to be buried at public expense shall be, are hereby required immediately to notify said Board of Distribution, or such person or persons as may be designated from time to time by said Board, or by its duly authorized officer or agent, whenever any such body or bodies come to his or their possession, charge or control, and shall, after giving proper notice to relatives or guardians of the deceased, without fee or reward, deliver such body or bodies to said Board and its agents, or

the physicians and surgeons from time to time designated by it, who may comply with the provisions of this Act, to take and remove all such bodies to be used within this state for the advancement of medical science; but no such notice to said Board need be given, nor shall any such body be delivered, if any person claiming to be and satisfying the proper authorities that he or she is of kindred, or is related by marriage to the deceased, or, as a friend of the deceased, shall ask to have the body for burial, but it shall be surrendered for interment.

SEC. 3. The said Board, or its duly authorized agent, may receive and take such bodies, so delivered, as aforesaid, and shall, upon receiving them, distribute and deliver them in the following manner: To incorporated medical colleges and schools, in proportion to the number of students, which number shall be set forth in a sworn statement, submitted to the Board at such times as it may direct, by the dean, secretary or register of the college or school; and to any physician or surgeon entitled under the laws of the state to practice. Instead of receiving and delivering the bodies itself, or through its agents, the Board of Distribution may, from time to time, either directly, or by its authorized officer or agent, designate physicians and surgeons who shall receive them, and the number each shall receive. In the distribution, preference shall always be given to the medical schools and colleges, and to the physicians and surgeons of the county where the death of the person described took place.

SEC. 4. Before any medical college or school, or any physician or surgeon, shall be entitled to receive any bodies under this Act, they shall furnish to the county, or, in the city of St. Louis, to the city, a bond in the penal sum of one thousand dollars, conditioned that all such bodies shall be used only for the promotion of medical science within this state, which bond shall remain on file in the office of the clerk of the county court, in the city of St. Louis in the office of the city register; and whoever shall sell or buy any such body or bodies, or shall traffic in the same, or in any manner aid and assist in the same shall be deemed guilty of a misdemeanor, and on conviction shall be fined in a sum not less than one hundred dollars, and be imprisoned for a term not less than five days, nor more than one year, the fine accruing from such conviction to be paid into the school fund of the county where the offense shall have been committed.



SEC. 5. Neither the State, nor any county or municipality, nor any officer or servant thereof, shall be at any expense by reason of the delivery or distribution of any such body, but all the expenses thereof, and of said Board of Distribution, shall be paid by those receiving the bodies, in such manner as may be specified by said Board of Distribution or otherwise agreed upon.

SEC. 6. Any person or officer having duties enjoined upon him by the provisions of this Act, who shall neglect, refuse or omit to perform the same as hereby required, shall be guilty of a misdemeanor, and on conviction thereof shall pay a penalty of not less than fifty dollars nor more than one hundred dollars for the first offense, and for the second offense a penalty of not less than one hundred dollars nor more than five hundred dollars, and for the third offense, or any offense thereafter, the penalty of not less than five hundred dollars or to be imprisoned in the county jail not less than six nor more than twelve months, or both, at the discretion of the court, such penalties to be sued for by the health department, as the case may be.

SEC. 7. That all Acts or parts of Acts inconsistent with this Act be and the same are hereby repealed.

Approved, March 31, 1887.

The report was received and adopted and a hearty vote of thanks to the committee for their work was passed.

A request from the Cincinnati Hospital Library for back volumes of the Transactions of the Missouri State Medical Association was referred to the corresponding secretary.

At this point occurred the annual wrangle over the question of receiving a memorial from the W. C. T. U. which, as usual, was decided by laying the matter upon the table.

The next paper read was that of Dr. Garland Hurt, of St. Louis on "Milk as a Source or Medium of Infection."

Dr. Dewey, of Keytesville, then read a paper entitled "Medical Delusions."

The committee on nominations was then appointed, consisting of Dr. A. E. Gore, of Paris, H. C. Dalton, of St. Louis, R. F. Brooks, of Carthage, A. B. Sloan, of Kansas City, and W. E. Evans, of Boonville.

Dr. W. D. Griffiths, of Kansas City, then made a report on behalf of the State Board of Health, and in accordance with suggestions in this report a committee of three was appointed to memori-

alize the governor and legislature of the state, viz., Drs. R. E. Young, E. W. Schauffler, and G. M. B. Maughs, the object being to secure an appropriation for the purpose of carrying out the work of the Board of Health.

Dr. A. H. Ohmann-Dumesnil read a paper entitled "An unusual Case of Dermatitis Medicamentosa, due to Cubebs and Copaiba."

In the afternoon some time was unprofitably spent in a wrangle over the question whether the by-law fixing the time for election of officers should be set aside and the election held that day instead of on the third day of the meeting.

The sum of \$300 from the treasury of the association was appropriated to the fund of the International Medical Congress.

Kansas City was selected as the place for the 1888 meeting.

Dr. Lutz read a paper entitled "A Contribution to the Literature of Rare Forms of Abdominal Tumors."

Dr. A. J. Steele, read a paper on "The Early Recognition of Hip Disease," which was discussed by several members; and further discussion was ordered to be continued in the evening.

Dr. Rumbold read a paper entitled "Hypertrophy and Atrophy of the Nasal Mucous Membrane."

At the evening session the committee appointed to prepare a memorial to the governor and legislature with reference to securing an appropriation for the State Board of Health presented their report which was received and adopted.

Instead of a scientific discussion of hip disease which was the programme for the evening, the whole of the time was taken up with another profitless and unseemly dispute with regard to the election of officers, which, according to the by-laws, is set for the third day of the meeting, but which some of the members for reasons of their own were anxious to have held at once.

Thursday morning Dr. Wm. Dickinson read a paper on "Grey Atrophy of the Optic Nerve." Dr. Barek, exhibited a fine specimen illustrating abscess of the brain following or associated with otorrhea.

The association then went into an election of officers which resulted as follows: F. J. Lutz, M. D., of St. Louis, president, T. C. Boulware, M. D., of Butler, T. B. Jackson, M. D., of Macon, Jno. R. Hall, M. D., of Marshall, W. R. Adams, M. D., of Montgomery City, and J. W. Heddens, M. D., of St. Joseph, vice-presidents; J. C. Mulhall, M. D., of St. Louis, and J. H. Duncan,

M. D., of Kansas City, recording secretaries; W. E. Evans, M. D., of Boonville, corresponding secretary; C. A. Thompson, M. D., of Jefferson City, treasurer.

The regular order of business having been resumed, Dr. F. J. Lutz proceeded to discuss "Injuries of the Skull, and Brain Surgery."

At the afternoon session Dr. Lutz offered the following resolution which was adopted:

Resolved, that after the reading of formally prepared papers the remainder of the last day be devoted to the presentation of pathological specimens, cases and reports of cases.

The following resolution offered by Dr. J. F. Campbell, of Callao, was also adopted:

Resolved that the authors of papers to be read before this association shall send the titles of said papers to the chairman of the committee on scientific communications one month before the assembling of the association, and that it shall be the duty of the chairman of the committee to send a list to each member of the association.

Dr. C. A. Thompson reported a case of intra uterine fracture of the femur with intra-uterine union. The child is now two years old and there is distinct shortening of the affected limb.

Brief discussions of several points of interest to surgeons then followed, after which the officers elect were duly inducted into office.

Votes of thanks were passed to those who contributed to the interest of the meeting, and then the association adjourned to meet in Kansas City in May, 1888.

Wednesday evening a reception was given to the visiting doctors and friends by Dr. T. B. Jackson, and on Thursday the citizens of Macon tendered the association a banquet, which was largely attended and was a very enjoyable occasion.

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#### AMERICAN MEDICAL ASSOCIATION.

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The thirty-eighth annual meeting of this national association was held in Chicago, June, 7, 8, 9 and 10, 1887.

The meeting was called to order at 11 o'clock. Prayer was offered by Rev. J. S. McPherson and an address of welcome was delivered by Mayor J. A. Roche.



President E. A. Gregory delivered the annual address, his subject being "Cell-Antagonism", which he considered to be the foundation of symptomatology and pathology.

A report of a special committee on Immigration, which accidentally failed to reach the association last year, was read, and it was ordered that copies be transmitted to the Secretary of the Treasury and to the Senate and House Committees on Commerce.

A set of resolutions with a preamble condemning an editorial on the A. M. A. in the *Chicago Times* was laid upon the table by a vote of 133 to 89.

Action was then taken establishing a section on Dermatology and Syphilography.

The Chairman of the Committee to Memorialize Congress with reference to Inoculation for Yellow Fever, presented their report which was referred to the Section on State Medicine.

Wednesday morning Dr. J. M. Toner, chairman of the Board of Trustees for the Journal of the Association, read the annual report from which it appears that the affairs of that journal are in a satisfactory condition. There has been a net increase of 104 in the subscription list during the year. The total editorial expense including society reports, correspondence etc., had been \$2,758.95. The total expense of publishing the journal had been \$15,920.96. The total cash value of the property on hand is \$1,058.56,

The Special Committee on changes in the Plan of Organization and By-laws of the Association, Dr. N. S. Davis, chairman, made an elaborate report contrasting the conditions of affairs in Great Britain and in this country, and reaching the conclusion, after full study of the subject, that it could not recommend any radical change in the existing plan of the organization.

Some amendments were suggested as to the method of admission to membership by application, as to the appointment of a general council and defining its duties, also amendments to the by-laws providing for addresses in the general sessions of the meetings, all of which were finally adopted. This action was reconsidered the next day and the resolutions were laid upon the table until the next annual meeting.

A resolution was then adopted urging the prescribing of official medicines only, or of such preparations as have published formulæ in preference to others.

Dr. John S. Lynch, of Baltimore, chairman of the Section on the

Practice of Medicine, then delivered the annual address, referring to some of the more valuable recent therapeutic discoveries, especially with reference to the treatment of phthisis.

Thursday morning the Committee on Nominations made the following report which was adopted, electing the following officers for the ensuing year:

President, A. Y. P. Garnett, of Washington; Vice-Presidents, Duncan Eve, Nashville, Tenn.; D. Calvin, Clyde, N. Y.; C. J. O. Hagan, N. C.; A. Stedman, Col.; Librarian, C. H. A. Kleinschmidt, Washington, D. C.; Treasurer, R. J. Dunglison, Philadelphia, Pa.; Permanent Secretary, W. B. Atkinson, Philadelphia; Assistant Secretary, Jos. Ransohoff, Cincinnati; Trustees of the Journal, Leartus Connor, Detroit; E. O. Shakespeare, Philadelphia, W. T. Briggs, Nashville Tenn.;

The next annual meeting is to be held at Cincinnati, second Tuesday of May, 1887.

The Rush Monument Committee reported the receipt of \$389 during the year.

The Special Committee on Cremation presented a report closing with the following resolution, which was referred to the Section on State Medicine:

*Resolved*, That it is the judgment of this association that the burial of persons dying of zymotic diseases should be placed by law under the control of health authorities.

The following resolution was also adopted.

*Resolved*, That it is the sense of this association that it is desirable that two other members of the medical profession be associated with the committee on Inoculation of Yellow Fever already appointed, and that a committee of three be appointed to communicate this action to President Cleveland.

Dr. F. M. Johnson, of Kansas City, Mo., then delivered the address of the Chairman of the Section of Obstetrics and Diseases of Women; and Dr. Geo. H. Rohé, of Baltimore, delivered that of the Chairman of the Section on State Medicine.

Dr. G. S. Knox, of Chicago, gave the address of Chairman of the Section on Diseases of Children.

The treasurer's report showed a balance in the treasury of \$1,403.77.

The librarian's report was read and placed on file.

The Committee on Finance of the International Medical Con-

gress asked for an appropriation, and after some stirring speeches an appropriation of \$1,000 was made for this purpose.

Dr. Davis offered resolutions rendering eligible to membership in this association graduates of dental schools which require suitable preliminary study before entrance upon their professional studies, and second, providing for such an arrangement of the programme of annual meetings hereafter as to allow the holding of a regular annual dinner, so arranged that the members may dine with or without wine and pay only for what they choose to have furnished.

Friday, Dr. J. S. Marshall, of Chicago, delivered the address of the Chairman of the Section on Dental and Oral Surgery; and Dr. J. M. Quimby, of Jersey City, N. J., gave the address of the Chairman of the Section on Medical Jurisprudence.

Dr. J. M. Toner, of Washington, presented the report of the Committee on Necrology.

Dr. N. S. Davis presented the report of the Committee on Meteorological Conditions and that concerning the Collective Investigation of Disease in connection with the committee of the British Medical Association.

The customary votes of thanks were made and the Association adjourned.

Our limited space will not permit the presentation here of any report of the meetings of the several sections. The rooms in which the meetings of the sections were held were a good deal scattered, and some of them were at a considerable distance from the main hall in which the general sessions were held.

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#### AMERICAN SURGICAL ASSOCIATION.

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This association held its eighth annual session in Washington May 11 to 14, 1887.

The Association was called to order by the president, Dr. Hunter McGuire, of Richmond, Va., who delivered an address on "The Need and Value of Cooperative Work in Surgery," at the close of which he made a number of practical suggestions with regard to the work of this association, which were duly referred to a committee for consideration.

At the afternoon session, Dr. T. S. Dennis, of New York, read a paper on "Exploration of the Bladder by the Suprapubic Method." He is a strong advocate of this operation in preference to the perineal section for stone, etc.



Dr. John H. Packard, of Philadelphia, read a paper on "Suprapubic Cystotomy for other Purposes than the Removal of Calculi," relating a number of interesting cases. Both of these writers described their mode of operating.

Dr. A. Vandever, of Albany, read a paper discussing the question, "To What Extent can we classify Vesical Calculi for Operation?" giving reports of forty-one cases and remarks on the different operations made.

At the morning session of the second day the first business transacted was the adoption of a series of resolutions favoring the formation of the "Congress of American Physicians and Surgeons," in accordance with the plan proposed by the committee of conference of the several special societies.

Next followed a discussion of the subject of lithotomy, litholapaxy etc., as set forth in the papers read the day before.

Dr. J. Collins Warren, of Boston, read a "Study of the Process of Repair after Resection of the Intestines and Some of the Complications which Occur," in which he described a number of experiments which he had made on dogs.

Dr. C. B. Nancrede, of Philadelphia, read a paper in which he considered the question, "Should Laparotomy be done for Penetrating Gunshot Wounds of the Abdomen involving the Viscera?" He thought it a matter of importance from a medico-legal point of view, that this association, which might be regarded as the highest tribunal as regards questions of surgery, should give an authoritative opinion upon this subject. He then went on to discuss at length the indications favoring and forbidding the operation.

At the afternoon session Dr. R. A. Kinloch, of Charleston, S. C. reported a case of "Pistolshot Wound of the Abdomen, treated by Laparotomy and Suturing the Intestines."

Dr. W. W. Keen, of Philadelphia, gave an account of a case of "Pistolshot Wound of the Abdomen, involving the Liver, Stomach, Superior Mesenteric Vein, Intestine and Kidney—Laparotomy—Nephrectomy.

Dr. J. E. Michael reported a case of "Ventral Hernia successfully treated by Operation." He used strong silver wire sutures with the expectation that they would be surrounded by a mass of cicatricial tissue making a permanent closure of the ring. He thought this use of the wire was original with himself.

A paper on "Prognosis in Sarcomata of the Breast," by Dr. S.

W. Gross, of Philadelphia, was read by title and referred to the publication committee.

Dr. D. Hayes Agnew, of Philadelphia, read a paper on "The Medico-Legal Aspect of Cranial and Thoracic Wounds."

Friday morning the election of officers took place resulting as follows:

President, D. Hayes Agnew, M.D., Philadelphia; Vice-Presidents, N. Senn, M. D., Milwaukee, Wis; and F. S. Dennis, M. D., New York; Secretary, Jacob R. Weist, M. D., Richmond, Ind; Treasurer, P. S. Conner, M. D., Cincinnati, Ohio; Recorder, J. Ewing Mears, M. D., Philadelphia; Council, Jno. S. Billings, M. D., L. McLane Tiffany, M. D., Moses Gunn, M. D., and R. A. Kinloch, M. D.; Chairman Committee of Arrangements, Jno. S. Billings, M. D. The next meeting is to be held at the call of the president.

Dr. L. McLane Tiffany, of Baltimore, Md., read a paper on "Surgical Diseases of the White and Colored Races Compared." He holds that surgical affections follow different courses in the two races even when surroundings are identical; that negroes bear injuries and operations better than white persons; that surgical diseases involving the lymphatic system, especially tubercular diseases, are more fatal and more rapidly so in negroes than in the whites.

An interesting discussion followed, in the course of which Dr. R. A. Kinloch called attention to a matter of considerable importance. He claims that in the pure negro suppuration is less likely to take place than in the white, that the pure negro is not strumous, while mulattoes are so as a rule.

Dr. B. A. Watson, of Jersey City, read a paper, "An Experimental Study of the Effects of Puncture of the Heart in Cases of Chloroform Narcosis." He concludes from his experiments that puncture of the heart, especially of the right ventricle, stimulates muscular contractions and may be advantageously applied in the treatment of chloroform narcosis; that this effect is increased by the abstraction of blood from the ventricle by an aspirator needle; that the puncture of the right ventricle is safer and more effective than puncture of the left ventricle.

At the afternoon session Dr. T. J. Dunott, of Harrisburg, read a paper on "Hypertrophy of the Tongue, otherwise known as *Lingua Vitule*, *Lingua propendulæ*, and *Macroglossa*."

Dr. J. Ford Thompson, presented the report of "Two Cases of Vaginal Hysterectomy."

Dr. T. G. Richardson, of New Orleans reported a case of "Femoral Aneurism cured by Elevation and Flexion of the Limb."

Dr. David Prince, of Jacksonville, Ill., read a paper entitled "Wounds—their Aseptic and Antiseptic Treatment," in which he described the operating room which he has devised in which all the entering air is filtered through layers of cotton.

Dr. James McCann, of Pittsburg read a paper on "Splenotomy," describing a case in which the spleen had been removed and the patient recovered.

A paper by Dr. J. Ewing Mears was read by title, the subject being "The Study of the Methods of Operation practised and of the Results obtained in the Treatment of Cleft of the Hard and soft Palates."

After the passage of the usual votes of thanks the Association adjourned subject to the call of the President.,

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#### AMERICAN LARYNGOLOGICAL ASSOCIATION.

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The ninth annual session of this association was held in New York May, 26 to 28, Dr. E. Fletcher Ingals, of Chicago, presiding, and thirty members in attendance on the first day.

The president delivered the usual annual address, in which he discussed very fully the operation of intubation of the larynx, of which he is a strong advocate, dwelling specially upon the details of the after-treatment.

Dr. Chas. E. Sajous, of Philadelphia, read an account of "A new method of Intubation of the Larynx," displaying instruments and demonstrating their action. He claimed that these instruments give almost the same breathing space as does the normal larynx, that by their comparative shortness they greatly reduce the danger of crowding down the membrane, that the light weight and shape of the head-piece avoid interference with deglutition, that the valves enable the patient to breathe freely, that it cannot be coughed out, and that it is almost impossible to force it into the trachea.

Dr. J. Solis Cohen, of Philadelphia, then described a modified laryngectomy for which he claimed important advantages over the old operation. Several new instruments were then exhibited.

At the afternoon session, Dr. Jno. N. Mackenzie read a paper on "The Pathological Nasal Reflex."

Dr. J. O. Roe, of Rochester, then read a paper on Hay Fever, which called out quite an active discussion.



Dr. D. B. Delavan read a paper on "The Treatment of Atrophic Rhinitis by Applications of the Galvanic Current."

Dr. S. H. Chapman, of New Haven, read a paper on "Myalgia of the Pharynx and Larynx."

Dr. Fred. I. Knight, of Boston, then opened a discussion on the "Sensory Affections of the Throat," dealing specially with hyperesthesia and paresthesia and emphasizing the importance of treating the general condition.

Friday morning Dr. F. Donaldson, of Baltimore, read an elaborate paper on "Further Researches upon the Function of the Recurrent Laryngeal Nerve," including the report of a series of experiments in the biological laboratory of Johns Hopkins University.

Dr. F. H. Hooper read a paper on "The Anatomy and Physiology of the Recurrent Laryngeal Nerve," giving an account of a series of experiments in the Physiological laboratory of the Harvard Medical School.

At the afternoon session Dr. W. C. Glasgow, of St. Louis read a paper on "Measures for the Relief of Congestive Headaches." He considered only a variety of headaches resulting from over-distention of the blood vessels, the so-called brow-ache or catarrhal head-ache, occurring often at the menstrual period and then called uterine headache.

The cavernous bodies are then in a state of tension or congestion, and for the last four years he has been practising with satisfactory results the local abstraction of blood, by pricking these bodies with a lance-headed probe. The quantity of blood drawn rarely exceeds an ounce, and in some cases a dram is sufficient for relief. The bleeding could be repeated if necessary.

Dr. J. N. Mackenzie, of Baltimore, held similar views, and had used the same measures for relief of patients.

Others advanced different theories as to pathology and treatment of these conditions.

Another paper by Dr. Glasgow, on *Leucoplakia Buccalis* was read by title.

An animated and interesting discussion then followed on "The Treatment of Laryngitis in Professionals who are Unable to Rest." Dr. Solis-Cohen said that for acute hoarseness he uses first an emetic, allowing the patient to rest until the time of the performance, sucking pieces of ice and applying cold compresses to the

neck. In chronic laryngitis he uses a spray of zinc chloride solution, gr.ij to the ℥j. In the intervals of the play he allows the patient to inhale the vapor of the compound tincture of benzoin. Other inhalations that can be used are turpentine, terebene, eucalyptol, etc.

Dr. Beverly Robinson, of New York, preferred in acute cases other milder remedies than emetics. He uses internally triturate tablets of ammonium chloride every fifteen or twenty minutes with local applications of carbolized spray, modified Dobell's solution two to four times a day. In the chronic forms he had used locally the tincture of iron with glycerine, and had not seen any special benefit from internal medication. The faradic current applied twice a day had also proved serviceable in his hands.

Dr. Bosworth did not believe that there was any such thing as laryngitis of this sort, that the seat of the disease was in the nasal passages. Eliminate the cold in the head with cocaine, and thin the membrane with chromic acid, and the disease of the larynx would take care of itself.

Dr. Robinson and Dr. Bosworth differed very decidedly as to the value of cocaine, the latter favoring its use, and the former regarding it as injurious rather than beneficial.

Dr. Glasgow, of St. Louis, said that in acute cases, when the person *must* perform, he makes an application to the larynx of carbolized iodine which relieves the congestion and strengthens the vocal cords.

Dr. C. C. Rice then read a paper on "Glandular and Connective Tissue Hypertrophy of the Lateral Walls of the Pharynx."

Dr. C. H. Knight read one on "The Galvano-Cautery in the Treatment of Hypertrophied Tonsils." He punctures them in two or three places at each sitting, and five or six séances usually effect a cure.

Dr. Beverly Robinson read a "Note on a Frequent Cause of Nasal Hemorrhage," viz., ulcerations in atrophic rhinitis.

Saturday morning, Dr. Langmaid, of Boston, read a paper on the "Constitutional Treatment of Throat Affections." Local treatment, he said, was in the nature of repair, while constitutional and hygienic treatment must be in the direction of the renewal of normal processes.

Several papers were then read by title. Dr. M. J. Asch, of New York, read a paper giving a report of a case of "Stenosis of the Larynx" treated by Divulsion and Systematic Dilatation."

Dr. D. B. Delavan, of New York, then read an elaborate paper on "The Etiology of Deflections of the Nasal Septum."

Dr. Langmaid presented a pin that was removed from the larynx where it was sticking through the ventricular band and pointing backwards.

Dr. R. P. Lincoln reported a case of "Recurrent Naso-Pharyngeal Tumor," which he had cured by electrolysis.

Dr. W. C. Jarvis reported, "Two Cases of Congenital Occlusion of the Anterior Nares," a condition of which he had been unable to find any recorded cases.

At the afternoon session Dr. A. W. MacCoy gave an abstract of his paper on "A Comparative Study of some of the Methods of Treatment best adapted to the Relief of Occlusion of the Posterior Nares."

The final paper was prepared by Dr. J. W. Robertson, of Detroit; on "Plaster of Paris Dressing for Fracture of the Nose." This was read by title.

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THE REPORT of the Health Commissioner of the City of St. Louis shows that early in June there were two cases of small-pox at the Quarantine Hospital, one of them being a United States soldier received from Jefferson Barracks, and the other a nurse who was employed to care for this soldier and contracted the disease from him.

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THE MEDICAL STANDARD issued a very handsome daily edition during the four days of the meeting of the A. M. A. at Chicago, last month. It was very creditable to the editors and publishers of this journal still in the first year of its existence.

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THE TENNESSEE STATE MEDICAL SOCIETY at its fifty-fourth annual meeting in Nashville, in May, elected the following officers for the current year: President, Dr. P. D. Sims, of Chattanooga; Vice-Presidents, Dr. T. J. Happel, of Trenton; Dr. Richard Douglass, of Nashville, and Dr. J. M. Masters, of Knoxville; Secretary, Dr. Ambrose Morrison, of Nashville; Treasurer, Dr. Richard Cheatham, of Nashville.

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EMMET'S GYNECOLOGY has been translated into French by Dr. Adolphe Olivier, with a preface by M. Trélat.



# ST. LOUIS COURIER OF MEDICINE.

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## ORIGINAL ARTICLES.

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### SOME PHASES OF BUCCAL SYPHILIS.

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BY J. C. MULHALL, A. M., M. D., L. R. C. S. I., ST. LOUIS, MO., *Professor of Diseases of Throat and Chest in the Beaumont Hospital Medical College.*

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*Read before the St. Louis Medico-Chirurgical Society.*

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GENTLEMEN, I desire to bring to your notice several cases of the rarer manifestation of syphilis within the mouth, supplementing my report with a few observations, guided by reference to the few authorities at my disposal.

CASE I. In 1880, a gentleman in the second stage of syphilis, presented himself to me for treatment. He was kept on small doses of mercury with chalk, with occasional intermissions, for two years, meanwhile adapting his habits to the most rigorous hygienic requirements, with the single exception of tobacco chewing. In 1882 he was troubled with occasional rhagades at either angle of the mouth, which local treatment always speedily obliterated. He one day, in the spring of this year, informed me that he would consult me about his sweetheart, who had been suffering from a slight sore throat for a few days. On the seventh day of her ailment she visited me. I found her to be a highly cultivated, very intelligent, refined young lady, aged 21, who made the to me some-

what significant remark that she had never before suffered a sore throat which had lasted a week.

On inspection, with reflected sunlight, I found the mouth and upper respiratory tract perfectly normal, the right tonsillar region excepted. The anterior and posterior faucial pillars were uniformly puffy and congested, to a degree, however, scarcely noticeable unless by comparison with the opposite side. The intervening tonsil presented the same general appearance, except that it was somewhat more congested. It was in contact with both pillars, but did not project beyond their margins. At its centre appeared a faintly opaline circular patch, not exceeding in diameter two lines, level with the surface, and of a density apparently not greater than tissue paper. *To the touch the tonsil was as soft as the one on the left side.* The lady, to her knowledge, had never before suffered from any affection of the tonsils. Her slender neck facilitated the search for enlarged glands, but no trace of one could be found.

Naturally I was puzzled, and could give the gentleman no opinion concerning the nature of his fiancée's sore throat. They were engaged to be married, and he had lately often kissed her, a proceeding about which he had been very careful during the first eighteen months of his disease. He, quite familiar with the literature of syphilis, asked me if it were possible that a syphilitic individual, who had for two years faithfully pursued modern treatment, could have a contagious lesion, to which I replied in the affirmative. No treatment was adopted, and she was requested to use no kind of application, and to call twice weekly, which she did. I could discover no change in her throat, except that the little plaque was of somewhat denser consistence, no glands. I could find no trace of glandular enlargement in the groins, and the organs of generation were in a virginal condition. She was the more readily persuaded to avoid treatment, inasmuch as her only annoyance was slight pain on deglutition. Subsequent visits disclosed no material change from the phenomena observed at the first visit. In the middle of the fifth week the manifestations of secondary syphilis were visible, progressing until at the end of the sixth week there existed the following group. Fever, headache, osteocopic pains, general eruption of papular syphilides, loss of hair, including the eyebrows, desquamating erosion of the lunular margins of the nails, general debility, in short, typical secondary syphilis, with one exception, the throat. Curiously, ex-

cept with the condition as described of the right tonsillar region, no manifestation whatsoever was here apparent, nor did any occur until the third month, when mucous patches appeared on both tonsils.

CASE II. In January, 1886, Jennie W., aged 19, prostitute, consulted me for relief from a painful sore throat, which, notwithstanding domestic remedies, had persisted two weeks. On the right side of soft palate, one-half inch from its free margin, equidistant from uvula and anterior arch, appeared, of the diameter of a silver half dime, a flat, circular, barely elevated, grayish white infiltration. The surrounding mucous membrane was very moderately congested, there existing no zone of redness at the margins of the patch. With the index finger introduced into the right posterior naris, and the thumb applied anteriorly, a certain amount of density could be perceived, but the induration was by no means marked, hardly more so than exists in an old, thickened mucous patch, which indeed it otherwise much resembled. The mouth and throat were otherwise normal. At the angle of the jaw on the right, just beneath the parotid gland, could be felt, but not seen, two glandular infiltrations about as large as a hazel nut, of semi-firm consistence. Pain in the palate was continuous and severe.

My first conclusion was that it was an old thickened mucous patch. The patient, unusually intelligent for her class, denied ever having had any kind of venereal disease about the genitals, and indirect questioning elicited no history of syphilitic signs. An examination disclosed a healthy womb, vagina and vulva, and the absence of glandular enlargement. These facts and the cervical lymphatic infiltration led me to believe that I had the initial lesion of syphilis with which to deal. The patient readily consented to await developments and forego any kind of treatment. On the tenth day succeeding this, and therefore in the fourth week after the patient had noticed soreness of the throat, the usual manifestations of secondary syphilis began to appear, again, like the former case, without signs of inflammation in the mouth or throat. During the sixth week an iritis developed, for which Dr. Hunicke treated her. During the tenth week mucous patches of tonsils. I may mention, *en passant*, that her rash was mixed roseolar and papular, and persisted eleven months. She gave up her immoral life and entered heartily into treatment, but no method of administering mercury or iodide seemed to have any effect on



the rash. At the sixth month Dr. Hardaway kindly saw and prescribed for her but with equally futile result. The initial lesion rapidly faded without solution of continuity, and hence without scar.

CASE III. In September, 1886, a gentleman aged 40, consulted me for sore throat, only slightly painful, which had already persisted ten days. The disturbance was confined to the right tonsillar region. Both faucial pillars were slightly congested, tense, rounded and thickened to the extent of a half inch. Between them, but below their level, lay the somewhat swollen and but slightly reddened tonsil, and at its centre, with its long diameter from above downward, existed an oval shallow ulcer. It was extremely superficial, its base was pale, thinly covered with greyish slimy mucus, its edges ill defined. There was undoubted loss of substance, and to the touch there was unmistakable induration, both of the tonsil and adjacent palatine arches. At the angle of the jaw a mass of glands, aggregating the size of a small orange, and of stony hardness, existed.

I was in no doubt that this was the initial lesion of syphilis, and so informed the patient. In the third week after this, and therefore during the fifth week since the patient had noticed soreness, well marked secondaries appeared.

Subsequent events disclosed the source of this lesion, namely, mucous patches on the mouth of his fiancée.

In reviewing signs common to these three cases, it struck me as curious that in neither did a manifestation common to the early secondaries, roseolous sore throat, appear. I have found nothing in literature bearing on this point. Whether the seat of the initial lesion in other parts of the body, as for instance the penis, has any kind of immunity from the earlier secondaries, I am not prepared to state.

Another common feature was the absence about the lesion of circulatory disturbance, other than the mildest congestion.

This very commonly has its analogy elsewhere. Case I may well excite comment since there existed the following peculiarities: (1) Absence of induration, (2) Absence of open sore. (3) Absence of bubo.

I think it now definitely settled that induration is not a neces-

sary phenomenon of the infecting syphilitic primary. The clinical proofs of this in literature are overwhelming.

Mr. Jonathan Hutchinson<sup>1</sup> tells us "that when a sore takes on induration, it is a certain sign of coming syphilis, provided the patient has never before had syphilis, or that no caustic has been used. But the absence of induration goes for very little in the way of evidence, and it may vary in degree and in duration within very wide limits indeed. In many cases it lasts only a very short time, and is only very doubtfully marked; in others it may, in size and duration simulate a new growth. In women it is often very ill marked, and its characters vary much in relation to the special tissue affected. Such being the admitted, I may say, the every day facts, it is necessary to use this symptom with great caution in the diagnosis of syphilis. How variable in character, for instance, are the initial lesions as we observe them on the fingers of surgeons. I have more than once seen severe syphilis follow a midwifery chancre which was never more than a dusky scaly spot, not so large as a three penny bit, and never in the least excoriated."

Mr. Morgan, of Dublin, cites in his book<sup>2</sup> many instances of syphilis sequential to a soft sore occurring on various portions of the body, as for instance, the penis, vulva, finger, mammæ and lip.

Gross, in his work on surgery, remarks that he has had most unequivocal evidence in numerous instances of the infecting properties of the soft chancre.

I have no idea of exhausting authorities as to the question, "is a soft sore ever followed by syphilis?" Bumstead, and others equally high in authority, deny this occurrence.

They urge that induration is sometimes of very short duration, that the fingers of the experienced are often required to detect it. I can only say with regard to case I. that I saw her twice weekly until the secondaries were established, and on each

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1. N. Y. Med. Abstract, Feb., 1886.

2. Practical Lessons on the Nature and Treatment of the Affection Produced by the Contagious Diseases. By John Morgan, A. M., M. D., University of Dublin.

occasion palpated the initial outbreak, and could never determine even inflammatory induration. An experience of several years at syphilitic clinics in Dublin, London and Vienna has vested me with no inconsiderable experience.

So constant is participation of the ganglia adjacent to a venereal sore that many have denied the non-occurrence of such event. Many are guided as to the nature of the sore rather by the signs exhibited by the glands than those by the sore itself.

In the majority of cases of soft sore the adjacent ganglia remain intact throughout the course of the disease, whereas in the infecting lesion, induration of the adjacent glands is so invariable an accompaniment that Bumstead states that it always occurs in chancre.

Fournier's statistics, on the other hand, give 2 per cent as the number of those in whom no kind of adenitis occurs, with the infecting chancre.

A difference, however, must be made when we deduce cases from the observation of dualists and unicists.

It would be correct to say that soft sores, independent of their infecting or non-infecting character, produce non-indurated adenitis, whilst hard sores produced indurated adenitis. At least I deduce this formula from my studies of the behavior of glands adjacent to a soft sore which had been followed by syphilis. In my case No. I the relationship of the cervical glands to the tonsillar sore must be adjudged, therefore, not by the relationship of glands to an infecting or non-infecting sore, but by the relationship of glands to a hard or soft sore.

Viewed in this light, it is therefore not surprising that no adenitis whatever occurred on the lady's neck.

As to the third feature in this case, the non-solution of continuity of surface at site of lesion, it is easy to understand that an infecting sore need not necessarily be ulcerative, since the pathological process begins beneath the epithelium.

Mr. Hutchinson remarks that, making every possible allowance for sources of fallacy, there still remain a few cases in which careful observation from the beginning has quite failed to find a sore, and in which every possible region has been searched. Several of these occurred in medical men, in whom there existed no cause



for concealment, and exposure to risk was fully admitted, and the final nature of the disease recognized, and yet no clue to the original sore could be made out.

If we still, as a matter of hypothesis, cling to the belief that there must have been a sore, these cases, in their practical bearing remain very important. Is it possible that intra-urethral chancre may occur without pain, without signs of obstruction, without perceptible hardening and without discharge? Such is the suggestion of some, but it does not seem probable.

In view of these facts and of the one already mentioned, "the midwifery chancre which was never more than a dusky scaly spot without excoriation," Mr. Hutchinson writes that for practical purposes we must come to the conclusion that syphilis can exist without any chancre whatsoever.

Bumstead mentions having seen the case of initial lesion of syphilis reported by Dr. P. A. Morrow and designated by the latter diphtheroid of the glans, in which, in the words of Dr. Morrow, "there existed absolutely no erosion—its epithelial coat seemed to be continuous with that of the healthy mucous membrane. Its base was supple, with no trace of induration."

Bumstead saw three similar cases, and regarded them as a form of scaling or dry chancre, the *papule seche* of Lancereaux. Every one will admit that the solution of continuity of surface of a chancre may be but a mere fissure, a slight erosion. Whether the special tissue affected determines the absence of induration, it is hard to determine. Induration in chancres of the penis varies often, according to the portion attacked. Hard chancre of the genitals in women is admittedly a rare occurrence in reference to the total number of venereal sores, whilst this is not the case with men.

Extra-genital soft chancres, infectious or not, are very rare, whilst extra-genital hard chancres are quite common.

According to Cohen, "chancre of the tonsil is usually soft." Mackenzie says that by the touch it can be ascertained to have an indurated base. The characters of the hard chancre are not however, so well marked. Thus in a patient of Diday's there was a mere superficial erosion."

It would, therefore, seem that induration may or may not be

present in infecting chancre of the tonsil, and this from analogy we might expect, since extra-genital chancres elsewhere may or may not be indurated, as shown by Morgan to have occurred on the finger, lip and breasts.

It is possible that it is rather the individual as a whole, or the peculiar nature of the infection which determines induration in the initial sore. Possibly in case No. I the initial lesion would in no part of her body have become indurated.

Case No. II. illustrates also the uncertain features of an initial lesion in the mouth. Constant pain was the chief complaint of the patient. Had this not occurred, it is easy to see how a chancre of the mouth might pass away totally unperceived, and puzzle surgeon and patient afterwards in the search for the initial lesion. It is clinically held that the farther away from lymphatic glands an initial lesion occurs, the less will be their participation in the pathological process. The glands in case II being at a distance from the initial sore, the adenitis was, as compared with the tonsil lymphatic connections, of small extent and hardly recognizable, and the patient was unaware of its existence. The existence of these enlarged glands made me far more suspicious of the nature of the palate lesion than did the appearance of the latter. In neither, however, did inflammation occur, except that of mild inflammatory type.

In case II, again, the initial lesion at no time presented breach of continuity.

Case III was an example of Hunterian chancre, the most unmistakable type of syphilitic initial lesion. Whilst in the others all traces of the primary sore had disappeared within six weeks of inception, traces of induration were still manifest in this case three months after its commencement. In none was mercury administered until after the appearance of the secondaries.

If I may be permitted to draw conclusions from these three cases they would be as follows:

I. The occurrence of the initial lesion of syphilis in the tonsil or immediate neighborhood is not so rare as is generally believed.

II. It may be a non-indurated sore.

III. It may present no breach of surface continuity.

IV. It may be readily mistaken for a secondary lesion, the mucous patch.

V. Pain may or may not be a prominent symptom.

VI. Inflammatory areola is wanting.

VII. The non-indurated sore may exist without disturbance of the adjacent lymphatic system.

VIII. Immunity seems to be afforded against a common secondary, roseolous sore throat.

CASE IV. A physician, of middle age, did me the honor to consult me in October, 1886, with respect to the nature of a lesion existing in his mouth. On the dorsum of his tongue, beneath it, on the inside of the lip, on the gums, in the left cheek were to be seen ulcers of various dimensions and depth.

The smaller ones were characteristic catarrhal ulcers. They had clean cut edges, flat bases covered with a thin layer of remarkable cheesy concretion, were surrounded with inflammatory areola, and were painful. In the mucous membrane of the left cheek an ulcer had spread antero-posteriorly, parallel with the teeth, one and one-half inches long, from above downwards one-half inch, and in depth one-fourth of an inch. Its sides were shelving, its edges clean cut but angular (not serpiginous), and its surface thinly covered with ashen gray detritus. In the papillary layer of the tongue were two or three small, irregular, deep fissures ulcerated at the bottom. On the under surface there were typical common catarrhal ulcers. At the gum the ulcers were spongy, irregular and deep. There existed a certain amount of symmetry in their distribution. I was asked my opinion with regard to the nature of this ulceration. On the index finger of the right hand existed the remains of a midwifery sore, a purplish red discoloration adjoining the matrix of the nail. This had been an ulcer without induration, according to his own reliable testimony and that of several surgeons, but had been accompanied by indurations of the epitrochlear gland of the same side, with tenderness of the axillary glands of both axillæ. It had occupied six or seven weeks in healing. In the palms of both hands existed four or five tiny, pale, hard elevations of the cuticle, of the color of the surrounding integument, not desquamating and very painful. The subject was a man of magnificent physique, and had always enjoyed robust health, no organ excepted.



The gentleman himself, a physician of wide experience, was of the opinion that he had syphilis.

A sore on the index finger of a surgeon, which occupies several weeks in healing, which is accompanied by an indurated epitrochlear gland, is almost absolutely sure to be a chancre, not a chancreoid.

Was, however, the mouth corroborative evidence, or were the hands? My answer was that the evidence was still insufficient. I had never seen such a mouth, solitary proof of secondary syphilis. I had seen such a mouth several times, as simple ulcerative stomatitis, in non-syphilitic subjects.

Most authors mention superficial ulceration of the buccal mucous membrane as a frequent secondary syphilitic phenomenon. This is not my own observation, based on a pretty large experience. I have not found ulceration of any part of the body a frequent early secondary in those who have not been maltreated by mercury. In this case a man of the highest type of physical well-being, who had as yet taken no drug, there existed deep and extensive ulceration. The tonsils and pharynx were normal; there existed nowhere a resemblance to a mucous patch.

Dr. Hardaway joined me in the opinion that this was not the clinical feature of secondary syphilis of the mouth, and pronounced the skin lesion on the hands so trivial, so undefined, that it could not be assigned a name, and consequently of no diagnostic assistance.

No other abnormal sign, whatsoever, of any portion of the body could be discovered by the patient, Dr. Hardaway or myself.

An attempt was made with the various agents used in stomatitis to heal the lesions, but without avail.

After three weeks' observation the original ulcers still remained. This persistency inclined me to the belief that they were syphilitic. The ulcers of catarrhal stomatitis appear suddenly and subside quickly with or without treatment. They may occur afresh, as in a patient of mine, in whom these occurrences lasted six months, but they are short lived.

Very superficial serpiginous ulceration of both tonsils now occurred, and I agreed with the gentleman's proposition to exhibit mercury internally. They at once began to improve. Before they were quite healed, he ceased taking mercury, when they ver

shortly began to spread. Mercury at once again improved them, and a relapse of the nearly healed ulcers again followed when he ceased mercury. At this date four months since their inception, one or two of the original sores, modified into an exquisitely serpiginous aspect, still remains. He has been irregular in taking mercury.

A few weeks after our first consultation, the subject of these remarks was amazed to be consulted by a young man who presented almost a fac-simile of his own case.

He had a history of a sore on the penis, however. His only secondaries were a few poorly marked papules in the palms, which Dr. Hardaway declared, however, to be unmistakably syphilitic, and buccal ulceration, the very reproduction of the physician's own case. There existed no other sign whatsoever.

That the later lesions may occur during the period usually assigned to secondary manifestations, I am well aware. I have seen the most extensive rupia occur within two months from the primary sore, and bone necrosis within four months. Secondary and tertiary indicate clinically the kind of lesion, as well, or rather than the date of their occurrence.

It is, perhaps a matter of general knowledge that mucous tubercles may occur in the mouth in the early stage of syphilis, may disorganize and ulcerate. My only claim is that these ulcerations are often far from typical, that they may simulate simple ulcerative stomatitis, and that he is a cautious man who withholds diagnosis when such lesion is the solitary proof of secondary syphilis.

Since writing the above one more case of chancre of the tonsil has come under notice in private practice, an exact reproduction of Case III.

I wish to call attention to the fact that the four cases had their initial lesion on the right side. In this last case the young gentleman was infected from mucous patches on the tongue of a prostitute.

## DOCTOR WILLIAM BEAUMONT, WITH LESSONS FROM HIS LIFE.

BY PROFESSOR A. J. STEELE, M. D.

[*An address delivered at the First Annual Commencement of the Beaumont Hospital Medical College, St. Louis, March 1, 1887.*]

Appreciative honor was not accorded Beaumont by his own countrymen while he lived, nor has this, his own city, since his death, placed an estimate on his worth sufficiently high to give it recognition in a permanent public form. St. Louis is not guilty of having too highly honored her deserving dead. With the exception of a bronze statue or two in our public parks, and titles given to certain of our public schools, the names of our good and great are unknown to the masses. Would it not be well if we should imitate some of the European cities, and place fountains and statues of our distinguished dead in the open spaces, and at street intersections, not only to beautify our city, but to educate and inspire the young to lofty purposes and noble deeds?

But do you ask why the name of Beaumont should claim such homage? Bear with me for a few moments while I, as briefly as the subject will permit, reply, and tell you what I may of

### DR. WM. BEAUMONT AND THE LESSONS OF HIS LIFE.

Some years since, while still an undergraduate in an Eastern town, situated near one of our great lakes, I had the good fortune to have for my preceptor, a man educated and scientific, fully abreast of the times in professional lore, a Nestor then, and thank God, a Nestor still, doing valiant service in alleviating the sufferings of poor mortals. One day he brought to the office a case unique in its past history and in its then present possibilities. I, with wonderment and curiosity combined, looked on while there was shown to us a healthy fellow, having an opening in his left side, large enough to admit a finger, so that we could pass instruments, and even look into the stomach, examine



the state of its surface, and place within foreign substances to be subjected to the action of the gastric juice, and removed at pleasure, thus noting the changes wrought. This artificial opening was closed externally by a pad, internally by a flap or prolongation of the mucous lining of the stomach.

An hour and a half had elapsed since he had eaten a hearty dinner of roast beef and potatoes. By means of an elastic tube, a portion of the contents of the organ, rapidly becoming chyme, was removed; in appearance it was of a dark grumous character, and of creamy consistency, under the microscope showing still, though faintly, muscular fibrillæ and transverse markings. I was too much of a novice to appreciate all the experiments my preceptor made, and so long a time has since elapsed that I am not able to recall from the dim recesses of my memory what I actually saw. But it had been my good fortune to have seen the case of Alexis St. Martin, since then famous throughout the world, and familiar to every student of physiology through the published reports of Dr. Wm. Beaumont.

In 1822, Dr. Beaumont, then but 27, a surgeon in the U. S. army, stationed at Fort Mackinac, treated this man, then in his eighteenth year, who by the accidental discharge of a musket, had the left side of his body partially shot away. As bone, cartilage, and soft tissue sloughed, the healing of the wound was necessarily slow.

Ordinarily such extensive solution of continuity would have proved fatal, but the excellent physical condition of the patient and the superior skill and unremitting attention of his surgeon saved his life, though months rolled around and great suffering was endured before he was able to report for duty. A year after the accident found the man well, except for the presence of an aperture leading directly into the stomach. This opening resisted all plans adopted to cause its closure. Two years later, the young surgeon, fully appreciating the opportunity thus accidentally afforded of adding to the then meagre stock of knowledge concerning stomachic digestion, instituted a series of experiments and investigations on the properties and powers of the gastric juice,

on the motions of the stomach, and appearance of its villous coat, on the comparative digestibility of different articles of food, and on the effect of mastication and insalivation.

These experiments were continued with, however, much interruption, though a space of several years, at Fort Mackinac, Fort Crawford, Prairie du Chien and Washington. I say with interruptions, for the movements of the subject, St. Martin, were difficult to control. He would run away to his Canadian home, to be brought back again with great difficulty and expense. At the East, the assistance of noted chemists and physiologists was obtained, prominent among whom were Profs. Silliman and Dunglison. I well remember the eloquence of the latter, as many years later, he gave to the students in his department of the Institutes of Medicine, at the Jefferson Medical College of Philadelphia, an account of Beaumont's experiments and valuable addition to our knowledge of digestion, and expatiated on the debt of gratitude the profession of the whole world owed him.

Beaumont, believing that the savants of Europe would be able to make more thorough analyses of the gastric juice and chyme than could be done in this country, essayed to take St. Martin abroad, and not succeeding in securing financial aid from the Government, he determined to do so at his own expense, and obtained a year's leave of absence, for he was still an army surgeon. This was, however, later, cut down to six months, which deterred him from going, for with two month's consumed in the passage across and back, he felt that the four months left would be too short a time for a thorough and satisfactory prosecution of the work.

Our government never afforded him any aid in his investigations, nor remunerated him for the great outlay expended in the advance of science. Edward Everett and other friends urged on Congress a small appropriation for the purpose; but the reply was, "no expenditures for scientific purposes," although, what is strangely inconsistent, a little later, thousands were voted for less scientific and important measures. Though Beaumont had not satisfactorily completed his investigations, yet at the urgent solicitation of many members of the profession, he published in book form, in 1833, a report of the case and of his experiments,

with the results and deductions. I hold in my hand a copy of the work. It is primitive in style and binding, and rich in color from age, but this is not objectionable, especially to those who, like myself, have a fondness for old paper.

This particular copy was presented by the author to Wayman Crow, Esq., as indicated in his own hand-writing; by Mr. Crow's daughter, Mrs. C. L. Carr, it was given to Dr. Hughes, and by him donated to the college. It will be preserved among our archives, with such other mementoes of him whose name does us honor, as we can obtain. The title reads: Experiments and Observations on the Gastric Juice, and the Physiology of Digestion, by Wm. Beaumont, M. D., Surgeon in the U. S. army, Plattsburgh, 1833.

The work was not received in our own country with the favor its merit deserved, though a second edition was called for in 1847.

It was translated into French and German in 1834, and republished in Edinburgh by Combe, in 1838. In fact, it was more highly appreciated abroad than at home, science being more advanced there. The truths it contains have found their place in every physiology since published, whether for the professional student, or general reader. My little girl, just entering upon the study of hygiene, so wisely introduced into our public schools, has already learned of Beaumont and his investigations from her "Child's Health Primer." I have recently enjoyed reading Beaumont's work, and find it interesting and instructive; even in the light of advanced science its statements are still true.

*The American Journal of Science and Arts*, Vol. 26, July, 1834, in a lengthy review of Beaumont's publication, after referring to the remarkable case of St. Martin, says: "We congratulate the public and especially the profession, that the case—St. Martin's—fell into the hands of one who appreciated its value, and who possessed the requisite intelligence, perseverance and candor, to make the investigations which it afforded, and to state the results of such investigations, in a plain, simple, intelligible manner, without bias from preconceived opinions, or fanciful hypotheses."



Again the reviewer states that, "There were physiologists who denied entirely the peculiar agency of the gastric juice in the production of chyme, and more who denied that this agency, if it existed at all, was exerted in accordance with chemical laws. All question upon this subject, we consider as entirely settled by the experiments of Dr. Beaumont. These have been so numerous and varied, as to leave no room for doubt or cavil." The closing sentence reads, "We commend this work as one which contains more facts, plainly and honestly stated, upon the subject of digestion in the human stomach, than can anywhere else be found."

Andrew Combe, the eminent Scotch physiologist, republished as already stated, Beaumont's work in Edinburgh, in 1838. In the preface, he gives among other reasons for reissuing the book: "An earnest desire that the author should obtain that credit, which is unquestionably due to his interested and indefatigable labors. The value of the experiments consisted partly in the candid and truth-seeking spirit in which all his inquiries seem to have been conducted. If an absence of systematized inquiry is observable, this is more than compensated for by the implicit reliance which one feels can be placed on the accuracy and candor of his statements. Having no theory to support, and no favorite point to establish, Dr. Beaumont tells plainly what he saw, and leaves each one to draw his own inferences, or where he lays down conclusions, he does so with a degree of modesty and fairness, of which few, perhaps, in his circumstances would have been capable.

"It must not be forgotten that Dr. Beaumont was far from enjoying the leisure, resources and scientific co-operation, so easily obtained by the physiologists of any of the European capitals. Stationed in comparatively remote quarters in the exercise of his duties as an army surgeon, and previously unaccustomed to minute physiological researches, he conducted his enquiries under great difficulties.

"With the most disinterested zeal and admirable perseverance he proceeded to avail himself of the opportunity thus afforded of advancing human knowledge, by engaging the patient at a heavy expense, to live with him for several years, and become

the subject of numerous and carefully conducted experiments."

Indicating that Beaumont's work was inaccessible to the British reader, Combe says: "It is a bare act of justice to him, and also the best way of fulfilling the objects he had in view, to make its contents known as widely as possible; for wherever they are known, they will be acknowledged to redound to his credit, not less as a man, than as a philosopher."

I recently learned that in a public address, delivered at a medical college commencement in this city, some two years ago, the remarkable statement was made that but little credit was due Beaumont for what he accomplished scientifically, that had St. Martin's case fallen under the observation of any physician, investigations and conclusions, equally important, and possibly more valuable, would have been made. Such an opinion, however, cannot be entertained in the light of the eulogistic statements of Combe. Beaumont would have taken high rank in any community, for he was studious and honest, and though he had not enjoyed advantages peculiarly fitting him for physiological investigations, yet he at once availed himself of all aids to be had from books, living chemists and physiologists. The surgeon-general of the army, a personal friend, placed at his disposal whatever means the department afforded. The wonderment is that he accomplished so much; he certainly did all that was possible under the circumstances, and the world owes him a debt of gratitude. We must not forget that animal chemistry was not as advanced in that day as at present. Many other cases of fistulous opening in the stomach have occurred, and yet what scientific facts have been gleaned from them? These cases have been considered more as curiosities than aught else, and our store of knowledge has not been increased by them.

An interesting testimony has recently come to us from one of our oldest and best known city physicians, Dr. Chas. W. Stevens, as to the high estimation in which Beaumont was held abroad. His own words are: "When I was in Paris, in 1850, I had the pleasure of an introduction to the eminently distinguished Velpeau, then regarded as the greatest of living surgeons. Upon my informing him of my place of residence he at once said, 'Ah! you have there the celebrated Dr. Beaumont.' He spoke of him

in high terms of praise, and asked many questions about him and his work. On meeting Dr. Beaumont, after my return, he was greatly pleased with my report of this incident. While I was still in Paris, Dr. Chas. A. Pope wrote me that arrangements had been made to have St. Martin come to St. Louis, and be subjected to physiological experiments, to be conducted by Dr. Beaumont, and Profs. Pope and Holmes. It was commonly reported that the devotion of St. Martin to Dr. Beaumont was such that he would not allow others to experiment with him, though munificent offers had been tendered him to that end. In this instance he had agreed to come through the influence of his old friend. By direction of Dr. Pope I purchased an outfit of delicate instruments, such as thermometers and test-tubes, and forwarded them by express. On informing Mons. Velpeau of this he was greatly pleased and interested. But our local scientists were doomed to disappointment, for St. Martin coming on from Canada as far as Detroit there squandered the hundred dollars Dr. Pope had sent him, and then returned to his home.

“The case containing the apparatus, vials, etc., used by Beaumont, as also an oil painting of the external orifice of the gastric fistula were all presented to Dr. Pope, by the son of Beaumont after his father’s death. They were highly prized by the possessor, and unfortunately were lost in the old college building destroyed by fire some years since.”

Of Beaumont’s personal history it may be said that he came from a sterling old New England family, the town of Lebanon having the honor of giving him birth more than a century ago. His ancestors were English, and he used jokingly to say, that he sprang from the “Beaumont and Fletcher” stock.

As opportunity permitted, in the intervals of farm work on his father’s place, he attended the country school, and when of age adopted medicine as his profession. In it he was enabled to accomplish great things for the good of his fellows by persevering industry, and unflinching self-sacrifice. Very early he had a purpose to which he clung tenaciously, and years found him enthusiastically pursuing it.

In 1812, Beaumont joined the army as Assistant Surgeon. War had been declared against England, and hostilities had com-



menced on the north-eastern frontier. Young Beaumont was soon in active service, and continued on duty until the close of the war in 1815.

During this period, he had gained so many friends, and such a high reputation, that in appreciation of his services, he was retained on the medical staff, while many, higher in rank and older on the list, were dropped from the rolls.

He, however, resigned his commission, and engaged in private practice in Plattsburg; but a year later found him again in the army ranking the same as when he left, having gained neither contentment nor emolument by absence from it. He was at once ordered to Fort Mackinac as post surgeon. This was in 1820; two years later, the accident to Alexis St. Martin, already referred to, occurred. 1827 finds him at Green Bay, 1829 at Fort Crawford, 1832 at Washington, 1834 at Jefferson Barracks near St. Louis, and still later in the city itself, then a town of few inhabitants.

In addition to his army duties, he was permitted to engage in private practice, and this city of St. Louis remained his permanent home for a period of eighteen years or until his death, which occurred in 1853.

In 1840, Surgeon-General Lawson, not as kindly disposed towards Beaumont as had been his predecessor, Dr. Lovell, ordered him to New Orleans. Rather than submit to such an indignity, he threw up his commission, and retired from public service to devote all his energies to private practice. Do not suppose that all these years spent in St. Louis, he was content with what he had already accomplished for science. He made frequent overtures to St. Martin to again enter his service, but in vain.

As Beaumont had taken high rank in public service, so in private practice, his mature age, ripe experience, and enviable reputation, soon acquired for him an extensive and lucrative clientele, among the best families of the city, which then contained a large military element. Between 1841 and 1849, Dr. Beaumont, so says an author of the day, resided a short distance from the city, visiting it daily, attending his professional calls. Where think you was located that "short distance?" It was a

tract of forty acres, bounded by the present Beaumont street on the west. In 1849, he removed from this too remote region into the city. The same year, 1849, found him battling with the cholera scourge, which swept with such fatality through the stricken city. Though over three score, yet he stood at his post with the zeal, courage and fortitude of his early years, giving noble service day and night to the unhappy sufferers. Succeeding years found him still on duty, with love for his profession unabated, until one evening, while descending the steps of a patient's residence, he accidentally tripped and fell, producing injuries which finally led to his death, April 25, 1853, in his sixty-eighth year.

A large concourse of friends followed his remains to the cemetery. The funeral services were conducted by his pastor and very dear friend Rev. Wm. G. Eliot. He died with his armor on.

His domestic relations had been most happy. He was united in marriage in 1821 to Miss Debora Platt, of Plattsburg, N. Y. The union was blest with children, two only of whom still survive, one of them, a daughter, honors us with her presence here to-night.

Beaumont was of a sanguine temperament and fearless; this latter attribute, on one occasion, proving very detrimental to him. At a Fourth of July celebration in his native village, a large cannon was being fired, and the boys dared each other to stand near. Young Beaumont, not to be outdone, drew so close that the concussion permanently injured his hearing, which impairment, as years rolled on, increased; yet he contended against this misfortune, and in other ways made up for the loss. While Beaumont was bold, yet as a surgeon he was also conservative. A case illustrating this occurred at the hospital. The arm of a poor lad had been by accident severely lacerated and comminuted. Doctor Pope and others decided that the limb must come off, that even the saving of the boy's life demanded it. Beaumont, entertaining a different and more hopeful opinion gave the lad his best skill and unremitting attention, and was rewarded with a life saved and a limb preserved to usefulness.

Dr. Beaumont never had special ambition for professorial

honors, yet he accepted the chair of surgery offered him by the trustees of the first medical college organized west of the Mississippi. This was in 1827, and among the trustees was the late Wm. G. Eliot, who came to St. Louis from the East in 1835, traveling part of the way with the family of Dr. Beaumont. Dr. Eliot always remained a staunch friend of Beaumont, though a much younger man. Not many in our community are left, who remember Dr. Beaumont. Death has been busy gathering them, but there are those still living who recall his prompt, ready manner and ardent temperament; they speak in the highest terms of his urbanity, disciplined judgment, vigor of mind and firmness of purpose.

If time permitted, I would dwell more fully on the incidents of Beaumont's life, but I can only add in conclusion a few lessons profitably drawn from that which we have thus briefly considered.

[TO BE CONTINUED].

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## ACETONURIA AND DIACETURIA.

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BY E. A. VOGT, M. D., FRIEDHEIM, MO.

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**D**R. V. JACKSH, at Vienna, has given in a monograph of 156 pages, his laborious and extensive investigations on the nature of these pathological manifestations hitherto very little understood.

To give a general outline and some of the conclusions deduced from his examinations is the design of this paper, in the hope to draw the attention of our confreres to this very interesting study and perhaps to instigate some to take an active interest in it and become themselves coworkers in this not much overworked field of chemico-physiological research.

1. **ACETONURIA.**—Dr. Petters, assistant in the clinic of Prof. v. Jacksh in the year 1857, was the first one who observed in patients suffering from diabetes mellitus, a complex of grave



symptoms, which later on Dr. Kussmaul described under the name of coma diabeticum, caused or accompanied by an excess of acetone in the urine. We find acetone in the normal urine, but in exceedingly small quantities. It can also be traced in the exhalations, in the feces, in the contents of the stomach and small intestines and in the blood. We pronounce acetonuria pathological only in those cases where the daily amount of urine contains more than .001 gram acetone, often exceeding 0.5 gram.

Dr. v. Jacksh treats of acetonuria under three heads:

1. Cases where acetone is found all the time in large quantities, as in continued fevers; acetonuria febrilis.
2. Cases where acetone is not constantly found, but only now and then in different diseases.
3. Cases where the formation of acetone in large quantities constitutes the only disease. He calls it then auto-intoxication or acetonemia.

Under the second group he counts:

- a. Diabetic acetonuria.
- b. Acetonuria in cases of carcinoma.
- c. Inanition acetonuria.
- d. Acetonuria in psychoses, manias, etc.

1. Febrile acetonuria in all diseases with high continued fevers from whatever cause.

Dr. v. Jacksh examined the urine in ten cases of measles, eight of scarlatina, one of varicella, fifty of typhus abdominalis, three of typhus exanthematicus, twelve of pneumonia, four of sepsis, one of erysipelas, two of acute rheumatic fever, twenty of tuberculosis, one of nephritis and one of melanemia.

He found in all these cases large amounts of acetone in the urine. As soon as the fever abates and the temperature sinks, the elimination of acetone is also lessened.

On the other hand diseases *without* continued fever were observed, and the urine examined for acetone with negative results in eight cases of heart-disease, three of anemia perniciosa, three of leukemia, two of arthritis deformans, two of hepatitis interstitialis chronica, nine of carcinoma ventriculi, four of nephritis chronica and one of nephritis acuta.

- a. Diabetic acetonuria.

At first he remarks, that not every case of diabetes shows a great elimination of aceton in the urine. In general, there appears to be no relation between glycosuria and acetonuria, and the aceton to have but little clinical significance, except it may be followed by elimination of diacetic acid; and only in such cases diabetic or better "diacetic" coma may follow.

*b.* Acetonuria in certain cases of carcinoma.

Patients having acetonuria when the disease is beginning, often die earlier than others without it.

*c.* Inanition—acetonuria.

In inanition from whatever cause, as in stenosis of esophagus or pylorus, or in patients refusing to take food, etc.

*d.* Acetonuria in cases of great mental excitement as in puerperal mania, acute mania and lyssa humana.

3. Acetonuria sui generis; very rare and seldom causing lasting dangerous nervous symptoms; generally for a time nervous irritation, vomiting, epileptic fits and delirium, but all relieved when no more aceton is eliminated, without further bad consequences.

To ascertain the presence of aceton in the urine, there are many different ways, but for practical purposes, I think, Legal's test is the best and easiest one, and can be executed without first distilling the urine.

Take a few crystals of natrium nitro-prussid and dissolve with a little water in a test-tube; of this solution add some drops to the fresh urine and make this mixture distinctly alkaline with caustic soda or potash; a red color is developed, whether or not aceton is present, but the color rapidly fades away: now add twenty or thirty drops of acetic acid; after some seconds an intense deep purple color appears, in case aceton is present; this red color changes afterwards to a brown-green shade. This test only holds good when the urine is rich in aceton.

II. DIACETURIA.—Gerhardt observed already in the year 1865, that urine of diabetic patients sometimes gave with solution of chloride of iron a Bordeaux-red color, but he believed this reaction due to acetic acid ether.

Dr. v. Jacksch was the first one, who found that when urine giving this reaction is treated with sulphuric acid and ether, the

latter dissolves an acid, which has this peculiar reaction in a high degree. He isolated this acid afterwards from the urine. About the same time Mr. Ceresole prepared this same diacetic acid from pure acetic acid ether, with potash and sulphuric acid.

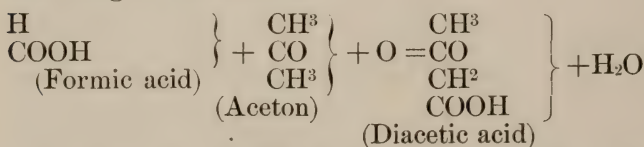
To prove the existence of diacetic acid in the urine is not so easy; because there are other substances which produce the same or very similar coloration, as formic, acetic, carbolic, salicylic acids, and decompositions of thallin, antipyrin, kairin, etc.

Dr. v. Jacksh gives the following advice:

To fresh urine add a few drops of solution of chloride of iron; if phosphates are precipitated, filter them off, and to the filtrate add again the chloride of iron solution. In case a Bordeaux-red color is produced, boil one portion of this so treated urine; to another portion add sulphuric acid till distinctly acid and then shake with ether. If now the boiled portion loses its color during boiling, and if the color of the ether-solution fades away in twenty-four hours, and, if at the same time acetone can be detected in the urine, then we have to deal with diacetic acid.

The presence of acetone in the urine, as we have seen, is no sign of ill-omen, but on the other hand, the presence of diacetic acid points to approaching coma and death, at least in adults. Acetone is a product of the oxidation of albuminoids, occurs also in lactic acid fermentation, but not, as had been taught, in alcoholic fermentation.

In normal urine small traces of acetone are found; but in larger quantities in different pathological states. If now the formation of acetone is enormously increasing, then this body unites with the acids issued from the disorganized albuminoids, perhaps only with the produced formic acid, to constitute diacetic acid according to the formula.



Diacetic acid resolves itself very easily into acetone, alcohol and carbonic acid.



Diacetic acid *never* occurs in normal urine and its presence accompanying high continued fevers is always a bad sign indicating a very malignant course.

Dr. v. Jacksh found it six times in eight cases of measles, twice in six cases of scarlatina, once in forty of typhus, twice in thirty-four of pneumonia, once in otitis media with meningitis, once in miliary tuberculosis and once in variola.

In acute febrile disorders in children v. Jacksh found diaceturia comparatively often and the prognosis *not* serious. Usually it appears in the beginning of the disease, is *not* preceded by acetonuria, to which it, however, often gives place, when the fever abates. The child feels weak, has a thickly coated tongue, often slight conjunctival catarrh, sometimes vomiting, usually constipation, in some cases slight or no fever, and these symptoms disappearing together with the diaceturia, but in others again nervous symptoms develop, high fever, convulsions, even meningitis. Dr. v. Jacksh believes that many cases of eclampsia infantum are caused by this auto-intoxication of diacetic acid, and in such cases depends on lactic acid fermentation in the stomach and especially in the intestines.

I believe that every physician has seen such cases in his own practice where the symptoms, very alarming at first, vanished quickly after giving a brisk laxative, as calomel, castor oil, etc. Diaceturia in diabetic patients Dr. v. Jacksh found only in cases, who were far advanced and much emaciated; not seldom is diaceturia then preceded by a long continued acetonuria.

Glycosuria and diaceturia have no direct relation; sometimes, however, a sudden disappearance of sugar in urine is followed by a larger elimination of diacetic acid, in which case, coma rapidly develops and death ensues.

Diaceturia, like acetonuria appears sometimes in mental diseases, in inanition and in carcinoma, but is always a bad sign for prognosis.

## THE MANAGEMENT OF THE INSANE AS VIEWED FROM WITHIN AND WITHOUT ASYLUMS FOR THE INSANE.

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BY C. H. HUGHES, M. D., *Member of the Association of Superintendents of American Hospitals for the Insane, Honorary Member British Medico-Psychological Society, Lecturer on Mental and Nervous Diseases St. Louis Medical College.*

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TWO different views obtain in the professional mind as to the precise value of hospital and private treatment of the insane, proceeding from two standpoints of observation. The physician whose sole experience with recoveries from mental disease has been confined to the insane of a large hospital, may regard no cases as curable without asylum care and treatment. but this would be rather an extreme and not generally held view among alienist physicians, while the narrowly experienced physician, whether general practitioner or neurologist, who has seen a few fortunate cases get well at home or in a small private home for the insane, may conclude that the large hospital is not the place for any insane person, that association with other insane is vicious in its influence, etc. Whereas, for some cases, only association with a large number of insane, and government by the regulations of a large institution, doing as the others do as to meals, retiring, bathing, exercise, recreations, eating, etc., is the only means, free from direct personal irritative control, of reestablishing conformity to rational habits; and the observing of mental derangement in others, and being told plainly the nature of their disorder, exercise a most salutary moral influence on some patients, setting them to thinking aright of themselves, instead of frightening them and retarding their chances of cure, as the inexperienced with the insane might theoretically conjecture.

There are phases of mental aberration that do far better in large and systematically regulated asylums than elsewhere. There are the profoundly insane, the highly maniacal, the general paretic, the moral insane, the filthy and destructive, the violent, the profoundly melancholic and extremely delusional, es-

pecially such as have delusions respecting their families, and who may have been all powerful or greatly influential in their homes and communities. Large numbers and large institutions, far removed from home, the farther the better often, influence these latter usually for good.

The mild and tractable insane, who think they have sinned against themselves in some way, the slightly melancholic, the acutely delirious forms of mania which, judiciously managed, may run a course of five to eight weeks, the puerperal and typho-maniacs which follow exhaustive fevers, the transitional psychoses of epilepsy, and the metastatic insanity of erysipelas and the suppressed exanthemata, and alcoholism and the insanity of opium sudden withdrawal, may be safely treated for a while, with hope of recovery, at home, or transferred to a neighboring family retreat for the insane.

But it would be a grave mistake to regard the large, and sometimes distant, hospital for the insane as not having its appropriate place in the proper treatment of insanity. This disease is a disorder of many forms and various and varying symptoms, requiring many resources and wide experience for its successful medical and moral management.

Only the novice and the tyro, or at least, the man of inadequate experience, will maintain that for the majority of the insane the well appointed large hospitals, corporate and state, large enough for judicious division and classification, are not the best places, though there are many exceptions to the rule.

Patients are sometimes cured of insanity by a timely transfer from one large asylum to a smaller one.

They may be cured by being judiciously sent from a small retreat or home to a large asylum.

They may sometimes get well (after reaching a stationary stage) by being sent home on a furlough, though they are more often made worse by this. They may recover by being taken from prolonged asylum treatment into a new country or across the sea.

The conduct of a patient after a reasonable trial in an asylum and the manner in which his surroundings influence him are usually subjects of study by good asylum physicians, and friends are advised accordingly.



Likewise should the conduct of a patient at home be carefully inquired into as to the influence of his environment upon him, his likes or dislikes of home and friends, the nature of his delusions, his confidence or morbid suspicions, dreads and fears.

No routine method of dealing with the insane as to home or hospital treatment can be wisely adopted, because the phases insanity assumes vary, and the welfare in environment of one may be the woe of another.

The judicious management of a case of insanity is not only a question of home or asylum treatment in each case, but it is in every case to the widely experienced alienist a question of what and when and which asylum is best, and cases not infrequently arise in practical psychiatry, as to what state or what country a patient should be sent. The personel of the asylum physician has often to be as cautiously considered as the institution for special cases.

One rule may be noted as having the fewest exceptions, and that is to remove the mentally maimed as far as practicable from the immediate causes of his injury. He must be taken like a wounded soldier from the battle field, out of danger from new mental wounds, whether that place be far from or near to his ordinary home.

If an insane patient is advised to travel, a physician skilled in psychiatry, and an attendant trained in the care of the insane should accompany him in order that valuable time for cure be not lost through neglect of salutary medication, and judicious management of surrounding influences, and in order that no tragedy or other unhappy accident may occur.

Only those accustomed to the insane and knowing what to look for are likely to be properly vigilant against suicide, homicide, or self-mutilation, etc.

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THE AMERICAN ORTHOPEDIC ASSOCIATION was organized and held its first annual meeting in New York in June. The officers elected for the coming year are: N. M. Shaffer, M. D., New York, president; A. S. Roberts, M. D., Philadelphia, and E. H. Bradford, M. D., Boston, vice-presidents; L. H. Sayre, M. D., New York, Secretary and Treasurer.

## CASES FROM PRACTICE.

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### A CASE OF ALCOHOLIC NEURITIS. PSEUDO-TABETIC VARIETY.

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BY C. H. STARKEL, M. D., BELLEVILLE, ILL.

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In June, 1885, while riding to his home from Belleville one afternoon, the patient, Dr. ———, æt. 23, noticed for the first time a peculiar feeling under and about the nail of the great toe of the right foot; "as if it were being lifted off. The same night there was an extension of this paresthesia to the rest of the foot. Soon sensation was similarly disturbed in the other foot. This disturbance travelled almost symmetrically up the lower extremities until it reached the waist, shading off gradually from half way up the thighs. Within two months after the beginning of the disturbance in sensation, the patient was conscious of a steadily increasing loss of muscular power and of atrophy. Until October of 1886, he was able to be around and out doors to some extent. Since that time he has been practically confined to the house, locomotion being accomplished with great difficulty. During most of this time he has suffered with muscular pains that have steadily increased in severity.

*Condition at first Examination, March, 1887.*—Dr. ———'s case had been pronounced locomotor ataxia, and so he believed it to be, and losing hope he was settling into the gloom that that conviction brought. After a casual examination I felt convinced that the trouble was not tabes. I had Dr. Frank R. Fry, of St. Louis, to see the case with me. The result of our examination was as follows.

Muscles of the legs and thighs much atrophied and flabby, the extremities cold and clammy. It was difficult for the patient to keep his feet warm. Every motion of any portion of the lower extremities was accompanied with pain, so that the patient was moaning constantly with the severity of it. The respiration was rapid

and abdominal. The tactile sense was much impaired, and in certain circumscribed localities gone from the toes to half way up the thighs. The locality sense was similarly impaired, *e. g.*, when patient was asked with his eyes closed to indicate with his finger where an object was touching the skin firmly, he could not come within two to four inches of it, sometimes not being conscious of a contact at all.

The temperature sense was also much impaired over the same area, *e. g.*, he could not distinguish wide differences in the temperature of water contained in test tubes and applied to the skin. There was no sensibility to the Faradic current until half-way up the thighs and then only to strong currents. Tests with the galvanic current showed the partial reaction of degeneration in all the muscles of the lower extremities and to a slight degree in the extensors of the wrist and fingers. Pressure on the muscles of the lower extremities caused much pain, compelling the patient to cry out. There was a very annoying and painful sensation in the scrotum, "as through it were being torn away." *The patellar tendon reflex was much exaggerated.* The eye-sight was not so good as formerly, but the Argyll-Robertson pupil-phenomenon was not present. Co-ordination was good. The patient suffered every few days from excessive emesis. He was constantly in pain, and lost rest so that he was much emaciated and very weak. Locomotion could only be accompanied by grasping objects for support or with the aid of attendants. Sexual power, or at least desire, was gone.

We made a diagnosis of multiple neuritis due to alcoholic excess.

*Treatment.*—The patient had continued to use alcohol, although in limited quantities, for some months past. This was withdrawn altogether. From what I have learned of the nature of these cases I think this was a very important item of treatment. Ergot was given in full doses until the pain had subsided. The ether spray was used on the spine and over the painful extremities. I believe the ether spray to be an antiphlogistic measure of great consequence, and that it may be made of much benefit in inflammatory lesions of the nervous system, peripheral and central. An application of a mild galvanic current was made daily to the whole of the lower extremities. In a week's time there were positive evidences of improvement, the pain subsiding, the patient sleeping, resting



and eating better. In about ten weeks the ergot was dropped, and iron and arsenic prescribed, and later nux vomica.

*Present Condition, June 25.*—Improvement has been uninterrupted. The pain soon lessened and finally disappeared. The muscles gained rapidly in size and have become firm and hard. Sensation has been restored from above downward, until now it is normal except in the feet and ankles. The patient has gained much in strength and general appearance. He is able to take long rides, and walks all about the town with comfort and satisfaction; and is still gaining.

REMARKS.—First, as to the etiology: The patient although only twenty-three years of age has drank whiskey in considerable amounts since a very early age. Of late years, although not given to sprees, he has been an almost constant drinker, and has not been careful about either the quantity or quality of liquor used. In the vicissitudes of a country practice he has been much exposed to cold and wet weather, being careless about these matters. Twice within the last three years he has slept in cold, wet clothes. On neither of these occasions did he suffer any immediate consequences. And on neither occasion had he been drinking heavily enough to be obtunded to the effects of the cold. The last occasion of this kind was in the winter prior to the date of the commencement of his illness, which, as above stated, was in June of 1885. I am of the opinion that this was a multiple neuritis of which alcohol was the cause, the exposure perhaps, and possibly other causes, entering only as minor factors. I am led to this conclusion:

First, By the fact of his very rapid improvement following the absolute withdrawal of alcohol.

Secondly, Because the trouble did not follow soon enough after severe exposure to be plainly attributable to it.

Thirdly, The slow course of the disease would indicate that beginning at first as a limited neuritis in the feet, the trouble was kept up and perpetually aggravated by the constant presence in the system of the special agent which caused it, namely alcohol.

Fourthly, In its symptomatology it is quite a typical case of alcoholic neuritis of the pseudo-tabetic kinds, the identity and entity of which affection is now established by satisfactory clinical and pathological evidence. Dr. Fry concurs in this opinion.

I was puzzled to explain the exaggerated "knee-reflex" in this case, knowing that we would expect to find it absent, or but slightly man-

ifest, in an extensive multiple neuritis of the lower extremities. In looking over some recent literature, I find that Buzzard, Struempell and Moebius report instances of its presence, the former in a case of alcoholic neuritis and the two latter observers in cases of multiple neuritis from other sources. They explain the phenomenon by assuming a state of increased irritability in the ascending portion of the reflex loop, *i. e.*, in the sensory nerves of the muscles and their neighborhood. The pain and other evidences of irritation in this case would seem to bear out this theory.

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### A CASE OF PROTRACTED GESTATION.

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BY O. D. FITZGERALD, M. D., LATHROP, MO.

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Inasmuch as the subject of duration of pregnancy, especially as it regards the human race, has been the topic of so much controversy among the members of the medical and legal profession, I have thought that it would be of some interest to have a report of a case which lately came under my observation. The patient was a woman of good repute, and an honest, upright person whose statements are received by those who know her best with the greatest credence. I ask your attention for a few minutes while I give you the following report.

Mrs. Annie E. B., æt. 38. Married seventeen years, the mother of eight children including the present birth. Her first confinement occurred June 3, 1870. The date of the birth of the last child before this was August 10, 1883, and in all previous labors there was nothing unusual in any way. She felt herself pregnant at or soon after her *molimen menstruale*, which took place February 14, 1885, and is quite sure that she "felt life" in the latter part of June, and at the same time she had to leave off her corset on account of the abdominal enlargement, which she says was quite perceptible—as much so in fact as she usually had been at that period in her former pregnancies. She had leucorrhea very profusely during the entire time intervening since her conception in February and checking slightly for a few weeks prior to her confinement.

Part of the time the hypersecretion of the mucous membrane of the vagina was so very profuse that she had to change her linen

four or five times each week, and to make the case more difficult she was subject to a discharge of blood *per vaginam* coming on about once a month and lasting as a rule from six to eight days, and on the last appearance, which was in March, 1886, the discharge lasted for six weeks, and from that time on till June 3, when confinement occurred, there was no discharge at all—a period of three months or nearly so. The source of this hemorrhage, at least in part, will be made plain when I report the result of examination *per vaginam*.

Her menstrual periods had been regular up to and including February 14, 1885, at which time she says her courses “got awful bad” and continued so at each period, lasting from six to eight days, as stated above, with an interim of one month, until the period embraced in the last of December and the first of January came on, when the flow lasted six weeks and was very profuse, losing an enormous amount of blood, so much so in fact that her head “got dizzy”. In November, 1885, pains like those of labor set in, continued awhile, and then passed off, and so things went on with more or less discomfort from backache and the extreme distention of the abdomen, which at this time, “November” was greater than it usually was at previous pregnancies at full term. Counting from February 14, we find that the “quickening” which she felt first in June would make as nearly as we can estimate just about four and a half months, and then from the time of quickening to the middle of November, when she was taken with labor as she thought and suffered pains similar to those she had experienced at former labors is just about another four and a half months. Hence from all obtainable data and facts bearing on this case we are led to the conclusion that the period of normal gestation was reached on or about the middle of November 1885, and the gravid uterus then becoming quiet and inactive remained in this quiescent state for a period extending from that time “November” up to June 3, 1886, when the confinement occurred, thus making the entire time from the date of the conception to the birth of the child 409 days, or 67 weeks.

We also observe that from the time of the quickening in June, 1885, to the birth of the child is in round numbers eleven months or 44 weeks.

I have collected a few cases bearing on this subject as follows:  
Dr. A. Stadfeldt, of Copenhagen (see “Abstract of Medical Sci-



ences" 1878 page 47), has determined in 35 cases when the date of coition was positively known the duration of pregnancy. He has added to these 34 cases 31 similar ones from M. Ranvin. The mean duration in these 65 cases was 271.8 days, the extremes being 250 and 293 days, a difference of 43 days. Dr. L. B. Almy of Norwich Conn. reports a case in the *New. Eng. Med. Monthly*, March 1885, and copied in the *ST. LOUIS COURIER OF MEDICINE* for May, 1885 in which he claims to have met a case of protracted pregnancy in a patient who was under his treatment for uterine disease. Menstruation occurred January 12, 1883. Intercourse occurred but once during January, viz., on the 25th. The pregnancy resulting terminated November, 21, being 311 days after the commencement of the last menstruation, or 300 days after intercourse.

Dr. Thomas Thatcher, in *Boston Medical and Surgical Journal* March, 30 1876, records a case of gestation extending 306 days. The child was very fat, with long finger-nails and plenty of hair; It was very vigorous from its birth.

I shall only mention the celebrated Gardiner Peerage case, which came before the House of Lords in 1825, in which it was shown in evidence that a child had been born to the divorced wife of Lord Gardiner 311 days from possible intercourse taking place prior to their divorcement. This decision was made by the Court after hearing the evidence of Sir Chas. Clark, Dr. Gooch and Dr. Davis who each stated that his belief was that forty weeks (280 days) is never exceeded, while on the other hand Drs. Blundell, Conquest and Granville asserted that the period was in some cases undoubtedly exceeded, and to such an extent that they were warranted in admitting the possibility of the claimant, Henry Fenton Jadis, having been a ten-and-a-half months child. Their Lordships found that the elder claimant was illegitimate, and that consequently, the son of the second marriage was Lord Gardiner. It must be admitted however, says Dr. Leishman, from whose work I quote this, that the moral evidence in this case had probably more weight than the medical.

We find many cases of protracted gestation cited in "Taylor's Medical Jurisprudence." Some, as therein given, stop short at 280 days; others, like Dr. Reid, give the maximum yet known at 293 days. Dr. Murphy allows from his experience at least 324 days and Dr. Meigs gives a case which was protracted to 420 days. Dr. Simpson records several cases in his own practice, in which the

period reached was 336, 332, 324 and 319 days, Dr. Merriman 298 days and Dr. Atlee two cases each equalling 356 days.

Since writing this article I noticed a report of two cases of "Extreme Period of Gestation" given by Dr. Bissel, of Eureka, Cal. and published in the *Medical Brief*, St. Louis, Mo., October 1886.

One of these cases, it is claimed, was protracted to twelve months from conception. Child was a male and weighed  $18\frac{3}{4}$  lbs!

The other case, was of a woman, whose period of gestation was prolonged to eleven months. The doctor states that in this case the os was dilated when he examined the case at his first visit at the end of nine months of her gestation and at that time the bag of water was beginning to form. About one month after being first called the water broke. After that, the pains quieted down and did not set up again until about a month or six weeks longer, when labor came on, and she brought forth a plump male child. Its weight was about ten pounds.

#### RECAPITULATION.

Last regular normal menstruation occurred February 14, '85.

She felt herself pregnant in February '85—about the period of menstruation.

The period of quickening she was confident was reached the latter part of June, '85.

In November, '85, pains like those of labor set in, continued for a while and then passed off. This you will observe was just nine months from date at which she fixes conception.

Periodical hemorrhages occurring about once a month throughout the first nine months of her gestation.

Two profuse hemorrhages, one in the latter part of December and embracing a few days in January. The other occurred in March, '86. Each one lasted about six weeks.

Placenta previa was also a complication in this case. The after-birth, which I will say was of an enormous size, was attached to the left side and the lower edge extended down to the margin of the inner cervical ring, and the recurring hemorrhages which I referred to as occurring more or less frequently I attribute to the attachment of the placenta being so low in the cervical portion of the uterus. The very profuse hemorrhage occurring during December and March I can account for in no other way than that the os uteri when first examined was very much dilated and so dilatable

that a normal head could have readily passed, and when we remember that these hemorrhages did not come on until after the attempted labor in November, we can imagine the os must have begun to dilate at that time; and, as we know, when it once begins to dilate or rather does so to any great degree it never regains its former tonicity sufficiently to regain its former size; and this being the case the os continued to dilate, not directly from uterine contraction but from pressure resulting from the accumulating amniotic fluid which had "filled the womb to its utmost capacity".

As the pains got stronger the membranes began to descend, and when the "waters broke", I can safely say that the fluid thus discharged, together with that thrown out at the birth of the child would have measured fully three gallons. I find this note in my case book which I made before the birth of the child. "Were it not so protracted a pregnancy I should be positive that it is a case of multiple pregnancy."

I shall not venture any opinion as to the origin of the amniotic fluid nor what pathological or other conditions bring on hydramnion. The question of the origin of this fluid has called forth a great deal of controversy. Some writers maintain that it is the production of the fetus, while others claim that it is furnished by the mother, and again we find others to argue that it is a joint production of mother and child.

Prof. Lusk tells us the prognosis for a child is fatal in nearly 30 per cent of all the cases in which there is an enormous quantity of water, and also he states that the risk of post-partum hemorrhage is considerable, and that the involution is apt to be protracted and incomplete. Such was the case in this instance in every point mentioned.

The history and results of the labor are as follow:

The patient had been having slight labor pains for a week, when I was first called in; and the first twenty-four hours of the time I was with her the pains were quite harassing, but not strong until the close of this period, when the labor began to grow upon her and continued to increase; at 2 A. M. the membrane was ruptured and a large quantity of fluid escaped. When I was thus enabled to reach the presenting part of the child, I discovered that it was a vertex presentation and that it occupied the sixth position, "Baudelocque." That is, the os frontis was at the symphysis-pubis, the occiput at the sacro-vertebral prominence. The head "traveled"



slowly, as is the rule in such cases, and after hard labor from 2 to 6 A. M., the child was born, and after a few minutes bathing, etc., it was made to "cry", and seemed to be resting fairly well for nearly three hours, when all of a sudden it began to fail and died three hours after birth. I have already taken up too much of your time, and shall not trespass further than to say that this has been a very interesting case to me, and taking the statements as to dates and general history as herein given by the patient, I am compelled to regard this as "one of the freaks of nature", which physicians occasionally meet with in their professional calling, and I will say, that I was surprised to find so many such cases in the limited time I have spent in looking the matter over, preparatory to reporting thereon; for the obstetrical literature, so far as I have examined, affords so many instances and the number, of cases therein cited upon undoubted authority by every writer, and the cases constantly reported as occurring under the personal observation of general practitioners, go to show that protracted gestation is not a myth, and especially that it should not be explained away by questioning the virtue or veracity of the mother. How long the period of gestation can extend beyond the normal time is not yet determined, but that it may extend over two months is apparently settled from what we have seen in the reports herein given. The same principle is involved whether the uterus tolerates the presence of a child three days or one hundred and forty days after the natural term of gestation has expired.

Meigs believes that after the uterus has performed its physiological function of gestation for the natural term, it rests from the work of gestation proper. Why does it not then exercise the function of expulsion? That question he does not attempt to answer, but believes that after gestation has performed its proper and peculiar work the growth of the child is complete, and it thereafter lies dormant in the womb. Otherwise the child would grow to huge size and its delivery in the natural way would be impossible, whereas in the case cited the size of the child at the expiration of the period of protracted gestation was normal.

## CITY HOSPITAL REPORT.

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H. C. DALTON, M. D., SUPERINTENDENT.

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REPORTED BY DR. BRANSFORD LEWIS, SENIOR ASSISTANT PHYSICIAN.

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## CANCER OF PANCREAS AND DUODENUM.—DEATH.—AUTOPSY.

W. H., male, æt. 74. Virginia, widower, bricklayer. Admitted April 15, 1887.

The patient's father had suffered with rheumatism; no other hereditary disease in his family. Five months before his entrance, patient gradually lost strength and appetite, and occasionally experienced attacks of vertigo. A heavy feeling in the region of the stomach, drew his attention to a body which moved easily about in the upper part of the abdomen. It enlarged noticeably during the four weeks previous to his arrival at the hospital. Patient did not suffer any lancinating pains, but complained most of "indigestion." He did not vomit. He was much emaciated, and was so weak at times that he could hardly stand. Countenance was very pale. Pulse feeble, 90 per minute; respiration 20°. Tongue coated yellow. Appetite nil, thirst moderate; bowels inclined to constipation. Heart, lungs and liver normal to physical examination. In the epigastric region, lying generally towards the left side, an oval body, about 8×10 cent. (3×4 in.), could be easily defined. It was of hard consistence, seemed smooth and was dull on percussion. It did not appear to be attached to anything in particular, but at the will of the operator could be made to occupy any location in the upper part of the abdomen, manipulation causing no pain. It always fell to the most dependent portion of the abdomen on change of position by the patient; when he was sitting up, it occupied the umbilical region. When it was held in the left hypochondrium, the dulness of the splenic region was markedly increased, but when removed from there, a small amount of splenic dulness still remained. In the epigastrium there was pulsation, heaving on palpation and a purring on auscultation—synchronous with the heart-beats. No test was made for hydrochloric acid in the stomach.

The patient gradually became weaker, and, without suffering, died May 15, 1887. Autopsy was held ten hours after death. The diaphragm was unusually arched; spleen very small and anemic. Kidneys almost bloodless and had a waxy appearance. Liver of

normal size, also waxy, stomach healthy; pylorus admitted three fingers. The head of the pancreas and first portion of the duodenum were joined together by, and imbedded in, a rather soft cancerous mass with dimensions of about 10 cent. each way. The process appeared to have begun in the pancreas and extended to the gut, which was dilated to double its natural size. Its cavity was irregular and nodular, and an incision of its walls yielded typical cancer juice. No secondary tumors were found.

CASE II. CANCER OF THE LIVER AND SPLEEN.—DEATH.—AUTOPSY.

Mary S. (colored), æt. 45, Tenn., widow, laundress, was admitted May 2, 1887.

No family history of consumption, gout, cancer or nervous disease; father had rheumatism; a sister was scrofulous. Patient's last illness began in Nov. 1886, when she had her feet frosted, and at the same time caught a severe cold and was confined to bed several days, after which she was able to be up but felt weak and sick generally. No information could be gained from her as to her state of health from this time up to about the middle of April; after that she was affected with frequent epistaxis—mostly at night—and then noticed pain in the umbilical and hypogastric regions. Examination pointed to the hypochondriac regions as being the tenderest portions of the abdomen. No pulmonary or cardiac lesion could be found. The liver was considerably enlarged downwards and towards the median line; area of splenic dulness increased. Patient was much emaciated and mentally obtunded. The tongue was clear, pulse small, 64° per minute. Bowels sluggish. appetite not good. There was no elevation of temperature.

Under the influence of tonics and nutritious diet patient seemed to improve some up to shortly before death which occurred on May 20. She suffered no pain except when the upper regions of the abdomen were manipulated in examination.

Autopsy ten hours after death. Spleen was increased in size, measuring  $14.5 \times 10 \times 3.5$  cent. ( $5\frac{3}{4} \times 4 \times 1\frac{3}{8}$  in.); weighed 230 gm. ( $7\frac{1}{2}$  oz.) On its surface were a number of reddish-white nodules, projecting slightly, and varying in diameter from that of a silver dime to that of a pea. They were of firm consistence, and section showed them to be globular, and disseminated thickly throughout the organ. Liver weighed 1450 gm (48 oz.) was enlarged and slightly adherent to the diaphragm by recent adhesions.



Over its surface were uniformly distributed small cancerous nodules, from a pea to pin-head size, and closely resembling those found in the spleen. On section, the organ was found thickly infiltrated with the same pathological formations. Some had broken down in the centre, forming cysts, but most were solid. Gall bladder and contents normal. An ulcer of the mucous membrane was found in the rectum. Suppurating cavities lined with a considerable quantity of cheesy material were found, one behind each psoas muscle. No connection was to be found either between them or with the vertebræ.

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SANITARY AFFAIRS ABROAD.—Paris is often spoken of as a model city in many respects. The following data, as published in the *Sanitary Era* would show that in matters of public sanitation it is by no means a model as yet: In Paris the tenement population increased from 142,671 persons in 1876 to 243,564 in 1882. One block containing 1,800 persons has no water supply whatever. The usual drainage in such buildings is through chutes leading from different floors into a hogshead in the cellar, which is emptied as occasion requires. According to M. Nadaud there are 219,270 houses in France without any window whatever, light and air being admitted through a hole in the door, which has to be stopped up in wet or cold weather. In Paris, although 60,000 tenements have been dealt with by the authorities under the act of 1850, there are some 4,000 persons living in single rooms without means of warming, and half as many others occupy rooms with no opening for light and air. Nearly thirty thousand habitations consist of a single room only. This overcrowding is partly the result of the destruction of small buildings to make room for costly apartment houses. A municipal commission recently appointed in Paris proposes that cheap tenements should be built on unoccupied sites belonging to the city.— *Wingate*

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PROTECTING ANIMALS FROM FLIES.—The doctor's horse is often greatly pestered by the stings and bites of mosquitoes and flies. The *National Druggist* says that horses and milch cows may be protected, in a great measure at least, by wiping them all over with a sponge dipped in soap-suds in which a little carbolic acid has been mixed.

## EDITORIAL.

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### DURATION OF PREGNANCY.

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While the determination of the duration of pregnancy in the human being is a matter of interest more particularly from a medico-legal point of view, as involving questions of legitimacy or of moral character, the question of the possibility of any considerable prolongation of the period of gestation is one of great interest to physicians, as a matter of scientific interest where no other interest is directly involved.

In looking over the works of the most recent writers on obstetrics we find that these observers differ to some extent in opinion, but that none of them are disposed to allow the probability of very great prolongation of this process of nature.

Dr. A. Charpentier,<sup>1</sup> in his admirable treatise on obstetrics, says:

“We, therefore, say, with all other authors, that prolonged pregnancy, the fetus being alive, does not exist as a physiological condition. It only exists in the following cases:

“1. In extra-uterine pregnancy; 2. In case of a dead fetus retained in the uterus, as with abortive ova; 3. Finally, in cases where the dead fetus is retained by obstacles to parturition seated at the cervix. Even in these cases prolonged pregnancy is very exceptional.”

A. L. Galabin<sup>2</sup> says:

“In America, a very liberal view has been taken, and legitimacy

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1 *Cyclopedia of Obstetrics and Gynecology*. New York: Wm. Wood & Co. 1887. Vol. I. p. 293.

2 *A Manual of Midwifery*. By A. L. Galabin. Philadelphia: P. Blakiston, Son & Co. 1886. p. 131.

has been allowed after intervals of 313 and 317 days. No case of protraction beyond 300 days from a single known coitus has, however, been scientifically established. \* \* \* Of cases in which the minimum duration of pregnancy was supposed to be fixed by the death or departure of the husband, one recorded by Mr. Hewitt gives 308 days, one by Sir James Simpson 313 days, and two by Dr. Murphy 314 and 324 days respectively. The two last, at least, are reasonably open to doubt, but there is some reason to think that pregnancy may possibly be sometimes prolonged to the equivalent of ten menstrual periods instead of nine, or to about 308 days. For cases have been recorded in which labor pains have come on at the expected time but have passed off again; and have not recurred until four weeks later, while the child, when born, has been of unusual size and weight."

Prof. T. Parvin<sup>1</sup> says: "If precocious births be granted, it is difficult to deny delayed births; if development be hastened in one case, it certainly may be protracted in another. But neither in rapid nor in tardy development is the difference such that more than a few days can be thus accounted for."

He also remarks<sup>2</sup> that Reese "takes the ground that it is possible for human pregnancy to be prolonged beyond the usually admitted normal period, but that the question how far beyond is more difficult to answer, though the greater the amount of the deviation the stronger and more convincing should be the proof."

In order that the determination of a very greatly prolonged pregnancy may be convincing, there should be evidence as to the time when fruitful coitus took place, or the last coitus before positive evidence of pregnancy occurred. This in most cases cannot be secured. It should also be always kept in mind that there are few matters of human experience which are less to be depended upon

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<sup>1</sup> The Science and Art of Obstetrics. By Theophilus Parvin, M. D. Philadelphia: Lea Brothers & Co. 1886. p. 205.

<sup>2</sup> Ibid, p. 206.



than the subjective signs of pregnancy. Even the sensation of quickening or the "feeling life" is unreliable, for, "as Hamilton<sup>1</sup> said, "no woman ever yet fancied herself pregnant without persuading herself she felt the movements of the child. Nay more, a woman after repeated experience as to the sensation in question may, with the best faith in the world, assert she feels these movements, and yet not be pregnant."

"Tardieu has said that all of the signs of true pregnancy, except the *bruit* of the fetal heart, may be observed when there is no pregnancy, from the development of the abdomen and breasts up to movements and the efforts of labor<sup>2</sup>.

It is entirely possible that some cases of seemingly protracted pregnancy are due to conception having taken place after the continuance for a longer or shorter time, of conditions and symptoms which had led to the supposition that conception had previously occurred.

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### MULTIPLE NEURITIS.

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In connection with the case of alcoholic neuritis reported in this issue of the *COURIER*, by Dr. Starkel, our readers will be interested in an abstract of a paper on multiple neuritis by Ragnar Bruzelius, which was published in the last number of *Nordiskt Medicinskt Arkiv*.

It is only since the epoch when Leyden more specially directed the attention of physicians to this disease that they have commenced more generally to distinguish it from other affections which resemble it. Some cases had previously been described, it is true, under different denominations, but it is very probable that the disease in question has most frequently been confounded with acute anterior poliomyelitis. The author describes two cases

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1 Parvin: Science and Art of Obstetrics, p. 181.

2 Ibid, p. 179.

of which one offers special interest by the considerable extent of the neuritis, not only to the nerves of the trunk and extremities, but also to those of the cranium.

A young girl of 17 years, from the country, who had previously enjoyed good health, but who in the time just before the onset of the disease had been exposed to considerable fatigue from watching, hard work and constant walking, fell ill about the middle of May, 1886, with chills, sweats and headache. The 25th of the same month there ensued numbness, anesthesia and paresis in both the legs, as also in the three fingers at the ulnar side of both hands. May 31 there was paresis of the left facial nerve. During the following week the paresis increased in extent and in intensity, so that not only all the facial branches of both facial nerves were found to be paralyzed, but also the muscles of the neck, of the trunk and of the extremities were very markedly paretic. There was anesthesia of the skin of the face as of all the rest of the body. Persistent pains, not the lightning-like pains, were in the legs and arms. The bladder and the rectum functionated normally. There were no contractures, no muscular spasms. On the fourteenth day of the disease the temperature was 40°C. (104°F).

On the eighteenth day there was an amelioration. The anesthesia diminished, but was replaced by a hyperesthesia. June 27, the patient entered the hospital. There was complete paralysis of all the facial branches of the facial nerves; considerable paresis of those of the neck, of the trunk and of the extremities. There was anesthesia of the skin of the face and of the lower extremities, pain in pressure on the nerve trunks and in the muscles of the face and extremities, slight atrophy of the muscles of the hands. All the cutaneous and tendinous reflexes were abolished. The electric reaction of degeneration was total in the face, partial in the extremities. No fever, intelligence good, functions of bladder and rectum normal. Rapid amelioration. After only a few days the anesthesia disappeared. July 8, the facial paralysis was notably better. July 13, the abdominal reflexes and July 27 the plantar

reflexes returned. July 23, could take a few steps. Sept. 23 the patellar reflexes returned. Sept. 29, the patient walked without difficulty and left the hospital.

The author shows how the symmetrical and considerable extension of the paralysis might lead to the supposition that the pathological cause had its seat in the central nervous system; the facial paralysis of all the facial branches and the reaction of degeneration of the face showed that the disease could not have its seat in the brain, but that it must be sought for either in the periphery or in the nervous centres of the medulla oblongata. It is extremely probable in the latter case that the superior branches of the facial nerve are also affected. As it is necessary to add to this that the simultaneous anesthesia of the extremities positively precludes an affection of the anterior horns of the spinal cord, it is certainly fair to consider the disease a multiple neuritis.

The author then reviewing the symptoms of multiple neuritis shows that all the more important ones were present in this case. In speaking of the etiology and the course of the disease, he comments on the differences which can be observed in different cases; differences so marked as to justify the admission of the existence of more than one form of this disease.

The second case was observed by the author ten years ago, in a young woman, æt. 23. All four extremities were paretic, but the cranial nerves were not attacked.

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## PROPHYLAXIS OF SCARLATINA.

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There is probably no disease, unless it be malignant diphtheria, which is more dreaded by physicians and parents than scarlatina. And just here we wish to utter a word of protest against that use of language, which is common among the laity and is encouraged by some physicians, which speaks of scarlatina as a modified or mild type of scarlet fever, whereas there is but one contagium.



Any reliable means of protecting the other children in a family, when one of them has become ill with scarlatina, will be a blessing to many households.

In a recent number (June 11) of the *British Medical Journal* there is a summary of some observations which have been carried out for some three years past by Dr. W. Allan Jamieson, of Edinburgh, with regard to this subject. We quote the following paragraph:

It is admitted that scarlet-fever is little if at all communicable, in its early stages, from the sick to the sound. On this first principle rests the advantage of prompt isolation, since a fair chance is thereby afforded of arresting the further extension of the disease from this its primary source. It is equally agreed that the flakes of skin cast off during desquamation contain the active contagium, and these, if inhaled or swallowed, reproduce scarlet fever in those unprotected by their having already passed through the ailment. Dr. Jamieson has endeavored to prove that, without separation, it was possible to prevent scarlet fever spreading from one member of a family to others of the same who had not had it, even though in close contact with him, or occupying continuously the same apartment with him. The two sources of infection are probably the exhalations from the mouth and throat in the early stage, certainly the particles of dry cuticle cast off in the latter. The method recommended was to disinfect the throat, painting it frequently with a strong solution of boracic acid in glycerine (a saturated solution of boroglyceride in glycerine). In dealing with the skin more exact methods were available. These consisted in the employment of warm baths every night from the very first, and in the application to the entire surface of the body, including the head, of an ointment composed of carbolic acid gr. xxx, thymol gr. x, vaseline ℥j, unguent simp. ℥j. night and morning. In this way he believed that the scales of epidermis would never become contagious, and actual experience completely bore this opinion out."

His theory in brief is as follows. "That the contagium of scarlet fever present in the scales when inhaled or swallowed produced such changes in the blood and tissues as to lead to the symptoms characteristic of the disease; that this contagium, which was in all likelihood an organism, in due course of time reached the skin and there ripened, so that where the dry flakes of keratine were cast off, these contained the organism in a state ready for immediate multiplication when placed under suitable conditions. Arguing from the domain of cutaneous parasitic diseases, it seemed to me permissible to anticipate that, were the soil kept continuously in a state unfavorable for the ripening of the organism, it would either perish or at least be thrown off immature. It also appeared evident to me that for the full development of the particulate contagium of scarlet fever air was necessary, since it seemed that the late desquamation contained it in largest amount."

This method of prophylaxis has been tried now for three years with entire success, and the author is quite confident of the complete efficacy of it.

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## THE TREATMENT OF FEVERS.

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In a paper by Dr. James Niven, "On Fever" in the *Medical Chronicle*, June, 1887 there is an excellent summary of the treatment of fevers most effective in the author's opinion.

Recognizing that in serious forms of fever the danger of death is from exhaustion or from complications he says:

The treatment of fever must be directed mainly to maintain the strength and procure rest, or, in cases where death is liable from exhaustion, the principal things are quiet and good feeding.

Taking as an illustration of cases in which there is danger both from exhaustion and from the occurrence of complications, a severe case of typhoid fever, with its danger of perforation of abdominal ulcers, he remarks that this will depend in part upon the con-

stitution of the patient and in part upon the treatment. He regards the ulcer as a tropho-neurosis, which may be affected greatly in two ways—first by judicious diet, second by avoiding irritation of the nervous system.

His suggestions as to diet we shall give nearly in full, as this has long seemed *a* most important if not certainly *the* most important element in the treatment of these fevers.

Judicious diet means a nutritious diet, easy to assimilate, and which is taken up readily by the stomach and bowels. This may consist of milk, tea made from raw meat or chicken and properly flavored, gruels made from fine meals, arranged and varied, fruit-juices sugared, and raw egg beat up in palatable materials.

Too much attention cannot be paid to humoring the caprices of the stomach, and varying the food to suit its demands. It is also of the greatest consequence to subdue persistent sickness in typhoid fever. If sickness persists, one must dodge about until one has subdued it, and got the stomach to submit to taking up some food. This may be effected by various means, among which may be mentioned cold sponging, alkaline drinks, with a little champagne in them—sometimes champagne alone will do it; a sinapism over the pit of the stomach will often be of service. Where such measures fail, he would try drugs. "In cases where the digestion is evidently feeble, food ought to be peptonized. We may thus save energy out of all proportion to the direct energy of digestion saved. The food should be fully pancreatized, and some odoriferous liquid added to cover any taste. Pancreatized milk does not form large curds, a great gain. Finally, though all other irritations are to be avoided, easily assimilated food must be got into the patient: if rendered necessary by sickness, in the form of enemata. This is vital for the reasons I have stated. We thus guard as far as possible not only against perforating ulcers, but also against other tropho-neuroses, such as bed-sores, and against the complications of fever generally."

Attention is next called to the necessity of the avoidance of



everything calculated to annoy or irritate the patient in the nursing and "in fact every source of irritation must be promptly removed, if possible."

"In the same way the nervous system must be assisted to recover from the jangle produced by internal causes, as well as by external. It is in this respect that antipyretics are of value". He finds the chief value of such drugs as antipyrin and antifebrin to lie in their action as nerve sedatives. He says "their usual effect is to subdue restlessness, remove delirium and produce sleep." He has not given more than seven grains of antifebrin and thirty of antipyrin. In two cases the reduction of temperature after antifebrin did not follow. Both of these patients died. He has not given larger doses than those mentioned, because both drugs in larger doses have caused collapse. He gives the preference to antifebrin over antipyrin as being less disposed to interfere with the stomach and as being equally harmless, in small doses.

He believes that from antifebrin carefully used the same antipyretic and calmative effects can be obtained as from the application of cold baths.

A paper by Dr. Francis Minot published in the *Boston Medical and Surgical Journal* June 23, 1887 gives the results of observations on the use of antipyrin and thallin in typhoid fever in the Massachusetts General Hospital.

The doses used varied according to age and degree of pyrexia. Twenty to thirty grains of antipyrin were generally given to an adult, eight grains to a child of twelve years and five grains to a child of three years whenever the temperature reached three-and-one-half degrees (F.) above the normal standard. If retained by the patient this invariably had the effect of reducing the temperature two or three degrees, and sometimes more in the course of one or two hours. The temperature would then rise during a similar period till it reached the original level, or a little less. Thallin had the same effect when given in much smaller doses. In general four grains of thallin were given to an

adult. When given in continuous doses, every three or four hours, for example, it was found in some cases that after one full dose the effect could be maintained by much smaller ones.

Dr. Niven accords high value to alcohol in treatment of fevers not to be used indiscriminately but in cases characterized by great prostration and in the later stages of severe cases. He says, he has seen one case unquestionably saved by champagne.

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### ODORS OF INFECTIOUS DISEASES.

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In the same paper "On Fever," by Dr. James Niven, there are some interesting observations on the odors of infectious diseases.

It has been a question with us in regard to which we have never been able to gain a satisfactory answer, how far the sense of smell is capable of education, and how far the power of discriminating between different substances by the odors which emanate from them is a natural endowment, almost, if not wholly, independent of training.

That this sense is much more acute among some of the lower animals than with men is a well known fact.

From a diagnostic point of view it is a matter of some interest, as Dr. Niven well says, that some of the infectious diseases possess distinctive, special odors; and if our knowledge in this direction can be so increased as to render it generally available, this will be a decided addition to the powers of the physician.

Dr. Niven says that the only odor, besides that of rheumatic fever, of which he has seen any mention in medical literature is a peculiarly heavy and offensive smell, like that of rotten straw, which has been observed in cases of typhoid fever. It is said to be quite characteristic, and not due to filth, since it is present in cases of this disease among the most cleanly people.

The disgusting and peculiar odor of small-pox, he says, occurs only in the worst cases and is of the gravest omen. "It is not

present in cases which do well, even when the body is covered with scabs, and it therefore probably means merely necrosis of the tissues, and a ptomaine generated in that process."

He states that for a number of years he has noticed in cases of scarlet fever a peculiar sweet odor of the breath, almost aromatic in character, far from unpleasant in itself, though rendered unpleasant by its associations. This odor has been noticed to be most marked in the early stages of the disease. In some cases this odor has rendered possible the diagnosis of scarlet fever a day before any other symptoms of the disease appeared, and several times before the rash was visible. The smell is sometimes very strong, especially in cases which he calls toxic scarlet fever, where the throat is but little affected, the rash is discrete and dark, and there is much delirium.

The same peculiar sweet odor is fairly often to be observed in the breath of typhoid fever, though less penetrating and powerful than in certain cases of scarlet fever. He admits being unable to discriminate between the odors of typhoid and scarlet fever.

Measles has a smell of its own, which Dr. Niven says, resembles that of scarlet fever, but is quite distinguishable. This has been compared by some to the odor of old cheese or mice.

Dr. Niven thinks it not unlikely that these odors are chemical products of the micro-organisms which are found in these different diseases.

In a discussion which took place in the St. Louis Medico-Chirurgical Society, Dr. W. A. Hardaway said (COURIER, Aug. 1883) that while he had seen some two thousand cases of small-pox, he had never been able to detect any specific odor aside from the common odor of fever, a sort of sweetish odor. Dr. Grindon who had had considerable experience in the small-pox hospital at Quarantine, was disposed to think that there was an odor peculiar to the disease. Other gentlemen present believed that there was a peculiar odor of small-pox; and Dr. Baumgarten stated that he himself had recognized an odor peculiar to syphilis, not present in every case,



but which, when recognized, had been an unfailing indication of the presence of that disease.

It would seem to be unquestionable from all the evidences adduced that, whether or not it may ever become practicable to develop and educate the sense of smell so that it may become available as a means of diagnosis to the majority of physicians, there is a certain proportion in whom this smell is of sufficient keenness to be of material service in detecting and differentiating some of the eruptive fevers.

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### AVOIRDUPOIS AND TROY WEIGHT.

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One of the arguments in favor of the universal adoption of a common standard of weight and measures is found in the confusion caused by the general use now of two different standards.

An interesting illustration of this confusion occurs in a paper published in a recent issue (June 23) of the *Boston Medical and Surgical Journal*. The writer was called to assist in the effort to rescue a man who had attempted to commit suicide by taking morphine. On the table was found a one-eighth ounce bottle, with Powers and Weightman's red label, containing by weight nine grains of morphine. The doctor concludes that, as there were nine grains of morphine remaining in the bottle, and as the man stated when he recovered, that he took all the rest, therefore he must have taken fifty-one grains of morphine, sixty grains being one-eighth ounce Troy or apothecaries' weight, whereas in fact, the wholesale houses and manufacturing chemists sell their goods by avoirdupois weight; and therefore an ounce of morphine weighs only  $437\frac{1}{2}$  grains, instead of 480, and a one-eighth ounce vial contains only  $54\frac{11}{16}$  grains instead of sixty.

The difference in the amount ingested is not sufficient to make at all less remarkable the fact that the man recovered from the effects of it, but it is, nevertheless, an amusing instance of inaccuracy in detail.

## BOOK REVIEWS AND NOTICES.

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A LABORATORY GUIDE IN URINALYSIS AND TOXICOLOGY. BY R. A. WITTHAUS, A. M., M. D., etc. New York: William Wood & Co., 1886. 8vo., long., pp. 75; cloth.

This little volume is admirably adapted to the purpose for which it is prepared, namely, as a guide for the use of the student in the practical laboratory work in the examination of urine and the study of toxicology.

The text is printed upon only one side of the paper, thus leaving every alternate page white for adding notes of the professor's lectures or observations on the experiments made.

Prof. Witthaus makes his instruction very plain, and this little handbook is one of the best for the purpose that we have seen.

HOW A PERSON THREATENED OR AFFECTED WITH BRIGHT'S DISEASE OUGHT TO LIVE. BY JOSEPH F. EDWARDS. Philadelphia: Presley Blakiston, 1881, 24 mo.; pp. 87; cloth; 75 cents.

This little volume has been before the public for seven years and has been read with profit, no doubt, by many. Personally, we have derived considerable profit from the reading of the book by a gentleman who, at intervals of a few months since that reading, has submitted for our examination, specimens of his urine in which there never have been found any evidence whatever of renal disease.

The volume is written especially for the laity, and the rules of life laid down by the author are very excellent.

DRUGS AND MEDICINES OF NORTH AMERICA.

Part No. 4 of Volume No. II. contains first the conclusion of the account of the lobelias. Then comes the descriptions of the scrophularia, or carpenters' square, *Lindera benzoin* or spice bush, *diphylleia cymosa*, or umbrella leaf, *cercis* or red-bud, and *erechites hieracefolia*, or fireweed.

In addition to the scientific interest of the botanist in this publication, there is much of great value and profit to the physician in

the thorough account given of the therapeutic uses of the various indigenous plants. We cannot learn too much of the remedial agents which grow all about us.

**ANÆMIA.** By FREDERICK P. HENRY, M. D., etc. Reprinted from the Polyclinic. Philadelphia: P. Blakiston, Son & Co., 1887. 32mo.; pp. 136; cloth. (St. Louis; S. M. Simpson & Co.)

We cheerfully commend to our readers this little volume as containing a very clear, well written epitome of our present knowledge on this subject.

The author classifies the different forms of anemia as I. Primary anemias, under which are placed chlorosis, Hodgkin's disease, leucocythemia, etc. II. Secondary anemias, those following or accompanying other diseases, as fever, phthisis, cancer, etc. III. Toxanemias, as from lead poisoning, arsenic, etc. IV. Parasitic anemias, as that caused by *anchylostomum duodenale*, etc.

This classification is by no means a satisfactory one, nor has any satisfactory classification yet been advanced by any writer.

The volume contains nothing original, but reflects very well the present views of the profession.

**THE PRINCIPLES AND PRACTICE OF OPERATIVE SURGERY.** By STEPHEN SMITH, A. M., M. D., etc. New and thoroughly revised edition. Illustrated with one thousand and five woodcuts. Philadelphia; Lea Brothers & Co., 1887. 8vo.; pp. 877, cloth or sheep.

Dr. Smith, in revising his work as first issued in 1879, has taken the opportunity to incorporate into it the advanced views of the modern "new surgery," setting forth the principles and methods of the best use of antiseptics, and giving the technique of operative procedures which are now performed successfully, but under the old regime were utterly impracticable or unwarrantable.

As a guide for operative work in surgery we can cheerfully commend this work to our readers.

**A PRACTICAL TREATISE ON IMPOTENCE, STERILITY AND ALLIED DISORDERS OF THE MALE SEXUAL ORGANS.** By SAMUEL W. GROSS, A. M., M. D., etc. Third edition, Thoroughly Revised. Philadelphia: Lea Brothers & Co., 1887; 8vo.; pp. 172; cloth.

Dr. Gross has taken occasion in revising this little volume to incorporate the results of his observations made since the publication of the preceding edition four years ago. This has not led to any material alteration of his views with reference to the treatment of these cases, but has generally confirmed his opinion and added strength to his position.



The work is a valuable one for the library of the surgeon or general practitioner.

THE VEST POCKET ANATOMIST (founded upon Gray). By C. HENRI LEONARD, A. M., M. D. Thirteenth Revised Edition, Enlarged by Sections on Anatomical Triangles and Spaces, Herniæ, Gynecological Anatomy and Dissection Hints. Detroit: The Illustrated Medical Journal Co., 1887, cloth, 86 illustrations, 154 pages, post-paid, 75 cents.

This little volume in its thirteenth edition contains clear and accurate topographical plates of the Venous, Arterial and Nervous systems, photo-engraved from the English cuts in Gray's Anatomy. This makes the work of value with the surgical case of any practitioner who may wish at his hand a "regional reminder" of the situation of arteries and veins that he may wish to avoid in making his incisions, and so may be of service to the country practitioner who sometimes does not have time to return to his office to consult more pretentious volumes. The "Dissection Hints" show the incisions to be made in post-mortems.



## BOOKS AND PAMPHLETS RECEIVED.

BOOKS.—Year-Book of Treatment for 1886. Philadelphia, Lea Brothers & Co., 1887, 8vo.; pp. 304; cloth.—A Treatise on Diphtheria, Historically and Practically Considered. By A. Sanné, Translated, Annotated; etc., by Henry Z. Gill, A. M., M. D., LL.D., etc. St. Louis, J. H. Chambers & Co., 1887, 8vo., pp. 656, cloth, \$5.00, sheep, \$6.—Anemia. By Frederick P. Henry, M. D. Philadelphia, P. Blakiston, Son & Co., 1887, 16mo., pp. 136, boards, 75 cents. (S. M. Simpson & Co., St. Louis.)—Medical Electricity. By Roberts Bartholow, A. M., M. D., LL.D. Third edition, enlarged and improved, with 110 illustrations. Philadelphia, Lea Brothers & Co., 1887; 8vo., pp. 304, cloth, \$2.50. (St. Louis, J. L. Boland & Co.)—Treatment by Massage and Exercise. By Joseph Schreiber, M. D. Translated with the author's permission by Walter Mendelssohn, M. D. Philadelphia, Lea Brothers & Co., 1887. 8vo., pp. 285, cloth.—Disorders of the Male Sexual Organs. By S. W. Gross, A. M., M. D., LL. D. Third edition, thoroughly revised, with sixteen illustrations. Philadelphia, Lea Brothers & Co., 1887. 800 pp. cloth.

PAMPHLETS AND REPRINTS.—Oration delivered before the Alumni Association of the Medico-Chirurgical College of Philadelphia. By Dudley S. Reynolds, A. M., M. D. (Med. Register).—Report of the Committee on Disinfectants, Presented at the Fourteenth Annual Meet-

ing of the American Public Health Association, held at Toronto, Can., Oct., 1886.—Transactions of the Rhode Island Medical Society. Vol. III. Part XV.—Elements of Success. By C. S. Stockton, D. D. S., Newark, N. J.—Live Birth in its Medico-Legal Relations. By John J. Reese, M. D.—Abuse of Alcoholics by the Healthy. By Stanford E. Chaillé, A. M., M. D. (Trans. Am. Pub. Health Ass'n.)—Earth Closets and Earth Sewage. By Geo. E. Waring, Jr.—The Claim of Moral Insanity in its Medico-Legal Aspects. By James Hendrie Lloyd, M. D. (Med. Rec.) The Prophylaxis of Diphtheria. By Llewellyn Eliot, M. D. (Med. Reg.) Congenital Occlusion of the Posterior Nares. By Alvin A. Hubbell, M. D. (Buffalo Med. and Surg. Jour.)—Abstract from Transactions of the Medical Society for the State of New York for 1887.—Pelvic Inflammations or Cellulitis vs. Peritonitis. By Thomas Addis Emmet, M. D. (Gynecological Trans.)—The Use of Adhesive Plaster in Orthopedic Surgery. By A. B. Judson, M. D. (N. Y. Med. Jour.)—Announcement of the Western Pennsylvania Medical College, Pittsburgh, Pa., Session of 1887-8.—Nineteenth Annual Catalogue and Announcement of the Woman's Medical College of the New York Infirmary, June, 1887. Forty-seventh Annual Announcement of Lectures in Medical Department of the University of the city New York, Session 1887-88.—Medicine and Medical Men. By John Godfrey.—Thirteenth Annual Announcement of Medical Department University of Tennessee. Nashville Medical College, Session of 1887-8. Drugs and Medicines of North America, March, 1887, No. 4. J. U. and C. G. Lloyd, Cincinnati, C., 1887.—Announcement of the Gross Medical College of Denver, Session 1887-8.—Annual Announcement and Catalogue of the Memphis Hospital Medical College, session 1887 and 1888.—A Unique Case of Bilateral Athetosis. By C. H. Hughes, M. D. (Alienist and Neurologist.)—Relation of the Nervous System to Hemophilia, Malarial Hematuria, etc. (Second paper). By C. H. Hughes, M. D. (Alienist and Neurologist.)—Importance and Value of Experimental Research. By N. Senn, M. D., Milwaukee, Wis. (Western Medical Reporter, March, 1887.) Annual Report of the Special Committee on Surgery, 1886. Compiled and edited by the chairman, Geo. Cupples, M. D.

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**DISTILLERY SWILL.**—Dr. S. Blake White, for ten years chief inspector of milk for the New York Board of Health says: Language too strong cannot, in my opinion, be used in condemning distillery swill as food for milch cows, and the severest punishment that the law allows is not adequate for the human brute that would wantonly inflict such cruelty on dumb animals as this method of feeding entails; but most important are the evils which milk from such sources imposes upon human beings when sold to nourish children, thus polluting at its very source the fountain of life.—*Science*, June 10.

# REPORTS ON PROGRESS.

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## OTOLOGY.

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BY M. D. JONES, M. D., *Assistant Otological Clinic, St. Louis Post-Graduate School of Medicine.*

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*Galvanism and Bromide of Quinine in the Treatment of Chronic Catarrh of the Middle Ear.*—DR. PATTERSON remembering that quinine has a specific action on the middle ear, and also that bromine, in its various combinations, controls the blood supply to the cranium, has experimented with the bromide of quinia. The first case was that of a lady who heard the watch in the right ear 4"; left ear hearing *nil*, the result of otorrhea in childhood after scarlet fever. Tinnitus marked in both ears. Galvanism was applied directly to the ear, and she was placed on bromide of quinine one grain t.i.d. She returned three days later, declaring the tinnitus grew so much worse that she had stopped the medicine. The drug was then given in quarter-grain doses, with slight improvement. Later this was decreased to one-tenth grain four times a day.

The hearing rose from 4" to 9" on the right side, and the tinnitus grew so slight that it caused no annoyance.

The second case was a lady, æt. 55, who had been deaf for many years, and who had had distressing tinnitus for over a year.

There was a large perforation in the Mt. of each ear. Watch could not be heard on contact in either ear. At the end of three months, under weekly applications of galvanism and one-tenth grain of bromide of quinine, four times daily, she heard the watch, and also for the first time in many years enjoyed a sermon while sitting in her usual pew. The tinnitus decidedly improved, and from being very despondent she grew very cheerful and happy.

In conclusion the writer states his belief that prolonged, systematic use of galvanism, combined with systemic treatment, with due attention to the nasal and pharyngeal mucous membrane, will do



more for the cure of chronic catarrh of the middle ear than any other method of treatment.—*Therapeutic Gazette*.

*Anatomy of the Middle Ear*.—PROF. GRUBER, of Vienna, before the Congress of Naturalists, reported a discovery in the anatomy of the round window.

He showed that the old idea of the labyrinth communicating with the tympanum only by the oval and round windows, is not correct, but there is a chink in the round window which leads to the vestibule and the upper passage in the cochlea.

In fresh preparations this chink is filled by the beginning of the ductus cochlearis.

A fine bristle can be passed from the niche of the round window into the vestibule, and can be plainly seen after the removal of the stapes from the round window.—*Amer. Jour. Med. Sciences*.

*Troubles of Hearing Among Railroad Employés*.—LICHTENBERG, of Budapest, has examined 250 railway employés, and found 36.8 per cent had impaired hearing. Thirty-two of these were catarrhal affections, three were diseases of the labyrinth, and thirty were those of the external ear. These results show the prevalence of impairment of hearing among a class whose occupation exposes them to such diseases, and in whom the public are interested as occupying responsible positions.—*Phila. Med. News*.

*Persistent Vomiting a Cause of Ear Troubles*.—Vomiting is not generally included among the causes of catarrh of the middle ear. We know that aural affections often complicate general wasting diseases in their final stages.

The pharyngeal muscles waste, and the latter days of the patient may be burdened with distressing tinnitus and autophony. Undue patency of the Eustachian tubes will sometimes account for the symptoms, but a further cause is due to the impaction of minute bits of food or mucus in the tubes during the vomiting.

Von Troeltsch's case, where a grain of barley was found, post-mortem, in the pharyngeal end of the Eustachian tube, proves that foreign bodies can reach the middle ear through the pharynx. Dr. Atkin reports the following interesting case. A patient during a violent fit of vomiting, where some of the contents of the stomach poured out of the nostrils, felt as if his right ear suddenly became plugged. He tried to ease the dull tickling sensation by introduc-

ing the little finger in the external meatus. When seen the next morning he was slightly deaf, and complained of his voice reverberating in his ear with a throbbing like "a pulse in the ear."

The drum-head was not affected, no air could be forced into the middle ear by Valsalva's method, though it was felt distinctly in the left ear. Deglutition, sneezing and yawning gave at times temporary relief. Some days later the left ear became affected as the right one.

At this time the right drum-head bulged slightly below and behind; and a sensation was felt as if a drop of fluid was in the ear. As the patient was dying from abdominal sarcoma no treatment was attempted.

The patient voluntarily attributed his ear trouble to the fit of vomiting. Deafness was not complained of, and no doubt he would have heard the watch if it had not been for the subjective sensations which drowned all faint sounds.—*Brit. Med. Jour.*

"*A New Method of Treating Chronic Aural Catarrh*" is the title of a paper by Dr. Seiss. Three forms of inflammation of the pharyngeal ends of the Eustachian tubes were observed.

1. Redness and infiltration of the tubal lips with active secretion of the glands: the nasal condition in these cases was hypertrophic catarrh in the stage of chronic venous distention with infiltration.

2. The prominence at the mouth of the tube was found to be enlarged, the color was dull reddish yellow on the inferior, and bright red on the superior surface. The mouth of the tube was often found completely filled with tenacious mucus. This condition was accompanied with advanced hypertrophy of the nose, the pharyngeal tonsil being enlarged and the post-nares being blocked with hypertrophies.

3. This condition accompanied atrophic rhinitis, and here the lips of the tube were shrunken, the mucous membrane sclerotic, and mouth of the tubes blocked by dried crusts.

It was noticed that though protracted treatment might wholly or partially cure the nasal trouble, still inflammatory traces remained about the Eustachian tubes. Applications made to the tubal mouths with the post-nasal syringe or the atomizer, gave such poor results, that the writer was led to devise a special instrument. This consists of an Eustachian catheter, closed at the point, and

having the sides of the curved portion perforated with numerous small openings. The instrument is introduced like an ordinary catheter, and when the beak is fixed in the tube, a suitable medication is thrown in by means of a syringe. The closed end of the instrument prevents the solution from reaching the middle ear, but the lower end of the canal and its lips are thoroughly cleansed. In the third class of cases, those suffering from atrophic rhinitis, the author found his syringe catheter to effect the least good, though some relief from tinnitus and increase in hearing were noticed.

The catheter was used satisfactorily in a number of cases of acute tubal catarrh following coryza, by injecting solutions of cocaine muriate, morphine, etc., and also much has been done with the syringe in the severe tubal inflammations which so often accompany purulent otorrhea.—*Medical News*.

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## MEDICINE.

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*Means of Arresting Pain in Cases of Burns.*—M. DUBOIS reports that he has succeeded in almost instantly arresting the pain in cases of extended superficial burns by allowing to flow slowly and continuously over the affected parts the contents of a siphon of seltzer water. Common water has not the same effect. M. Dubois attributes the favorable effect to two things, viz., the cooling effect and the carbonic acid.—*Rep. de Pharm.*, Mai; *Lyon Med.* 12 June, 1887.

*Danger of Antipyrin.*—M. P. CHÉRON having tried various forms of medication without being able to lower the temperature in a young woman pregnant at seven and a half months, and suffering from typhoid fever, gave antipyrin. The temperature had risen to 42.5° C. (108.5° F.), and cold baths could not be used on account of accessory circumstances. He administered 1 gramme of the drug in two doses, with five hours' interval.

Immediately the temperature began to fall, and in spite of artificial warmth, at seven o'clock in the evening the temperature was 35.5° C. (95.9° F.) and 34.5° C. (94.1° F.) at midnight. Cramps, difficulty of speech, hardness of hearing and cloudiness of intellect. These symptoms yielded to the persevering use of diffusible stimulants and warmth.



The high temperature continuing, M. Chéron tried to give very small doses of antipyrin without, however, getting any effect; he increased the doses little by little, but at the dose of 40 centigrammes (gr. vi), divided into eight parts at intervals of three hours, the symptoms of collapse anew appeared.

In this case, then, it was impossible to use antipyrin. It was either inefficacious, or else collapse appeared.—*L'Union Méd.*, 14 June, 1887.

*Ointment for Intertrigo.*—DR. CAMPARDON offers the following:

R <sub>x</sub> Vaseline,	- - - - -	30 grammes.
Acidi borici,	- - - - -	2 “
Ess. gaultheriæ,	- - - - -	gtt. x. M.

—*Nouveaux Remèdes*, June 8, 1887.

*Pills for Urticaria.*—N. GUENEAU DE MUSSY gives the following formula:

Pulverized jaborandi,	}	.10=gr. jss
Ext. guaiac,		
Lithiæ benzoat,		.20=gr. iij.

—*L'Union Méd.*, 16 June, '87.

*Arsenic in Arthritis Deformans.*—DR. A. F. M'KENZIE reports a case in which a woman, 60 years of age, had suffered at intervals for six years with rheumatic gout, and when she came under his care was suffering from an unusually severe attack. She was unable to turn in bed without help, and was suffering great pain which would often awaken her out of sleep. The left knee- and hip-joints were specially affected, as also the third metacarpo-phalangeal joint of left hand and the right ankle. There was an exceedingly sensitive point about the middle of the dorsal vertebræ.

Liquor arsenicalis (Fowler's solution) was ordered in doses of five minims, to be gradually increased till physiological effects were produced. In this way the dose was increased to eight minims three times a day. Fly blisters were applied to the painful joint. After the blisters healed, cloths wrung out of warm solution of potass. carb. were applied to the joints.

For a couple of weeks she thought she was worse, but then began to improve, and about three months later she was able to walk upstairs with the aid of a stick, and felt better than since commencement of illness. Potass. iodid. gr. iiss and a bitter tonic were added to the arsenic. Five months after the commencement

of the sickness she was able to go upstairs without a stick, though still complaining of being stiff in the joints.—*Canada Prac.*, June, 1887.

*Hammamelis Virginica*.—J. V. SHOEMAKER, after considerable experience with this drug, considers it a powerful astringent and hemostatic, also slightly sedative and tonic. He says it is most valuable in gastric hemorrhages, and in diseases due to a relaxed condition of the venous and capillary walls. In cases of hemoptysis in which the hemorrhages are small in quantity and prolonged, indicating a continuous oozing rather than an arterial or capillary rupture, this is a most efficient agent. In cases of sudden and profuse hemorrhage with full and frequent pulse, full doses of aconite, veratrum viride or other cardiac depressant must be combined with the hammamelis in order to get any satisfactory result from the latter.

In many cases of menorrhagia, especially in anemic patients, hammamelis will often act like magic.

In epistaxis he finds it a valuable remedy. If the pulse is rapid and bounding, and the nervous system in a state of excitement, Dr. Shoemaker orders the following:

℞ Tr. veratri viridis, m. xii.  
Morphinæ sulph., gr. i.  
Ext. hammamelis fl., ʒi.

M. Sig. One teaspoonful every hour.

If the pulse is normal and the nervous system undisturbed, one dram of the fluid extract of hammamelis every hour for three or four hours will usually suffice.

He has found it serviceable in hemophilia, hemorrhage from the bowels, purpura and varicose veins and ulcers. It is also serviceable in other conditions due to a relaxed condition of the mucous membranes.

The dose for internal administration should be not less than twenty minims, and in many cases the best results call for one dram doses hourly, or three or four times a day.

As an application to incised and lacerated wounds he recommends the following:

℞ Tr. opii deodorat., - - - - ʒss.  
Ext. hammamelis fl., - - - - ʒiiss.  
Aquæ, - - - - ʒiijss.

M.

—*Med. Register*, June 4, 1887.

*Treatment of Quinsy.*—W. E. GREEN has found the following formula most effective in the treatment of quinsy, and he thinks that we should be able to cut short the attack in nine cases out of ten when seen within the first forty-eight hours.

He gives:

R	Tr. aconiti,	-	-	-	-	-	-	3ij.
	Tr. guaiaci,	-	-	-	-	-	-	3iv.
	Glycerini,	-	-	-	-	-	-	3ij.

M. Sig. Twenty drops every hour in sweetened water till easier, then every four hours till well.—*Brit. Med. Jour.*, May 28, 1887.

*Cardiac Lesions from Excessive Muscular Exertion.*—WM. H. KELLY, in address before the Alumni Association of the Medical College of Ohio, considers this subject very carefully and reaches the following conclusions:

1. The heart muscle, like other muscles, is subject to injury from overwork.

2. Like other muscles it may be weakened by unusual and excessive work, and losing its tonicity and elasticity may, by the dilating force of the increased blood pressure, be dilated.

3. Like other muscles it may accustom itself to the increased exercise and become hypertrophied.

4. Like other muscles it may not exhibit any physical change as the result of overwork, yet be exhausted, and give evidence of it by weakened and irregular (spasmodic) action.

The heart may show the evidences of strain and overwork in two ways:

1. By weakened and irregular action without any demonstrable physical change.

2. In addition to the irregular action of the heart there may be physical changes, as dilatation or hypertrophy.—*Med. News*, April 30, 1887.

*Antipyrin in Whooping-Cough.*—SONNENBERG regards antipyrin as the best remedy he has used for whooping-cough, as the result of a trial in seventy cases. One-seventh of a grain is the dose he gives to small children, gradually increasing the dose according to the age of the patient, the full dose for an adult being fifteen grains. He gives the dose three times during the day, and sometimes once in the night. When dissolved in water and raspberry



juice, children take it readily. The drug diminishes the number and severity of the paroxysms. It must be continued during the whole attack, as too early discontinuance of the remedy is followed by exacerbation of the cough.—*Deutsche Med. Woch.*, April 7, '87.

*Picrate of Ammonium in Malarial Disease.*—MR. H. MARTYN CLARK, of the Amretzæ Medical Mission in India, states in the *Lancet* that his attention was first called to the value of ammonium picrate in the treatment of malarial diseases by a chemist who had had some in stock several years, but had never employed it. Trying it in a case which had been rebellious to quinine, arsenic and other agents for several months, the result was most thoroughly satisfactory. He claims to have treated over ten thousand cases with this agent with the happiest results. He has found such satisfaction that he has practically given over the use of quinine and other cinchona alkaloids in treating intermittent fever, and has substituted ammonium picrate for them. Of five thousand cases of which he kept record, only nine failed to yield to this remedy, and these were cured at once by quinine.

He usually gives doses of one-eighth grain to one and one-half grains four times a day in pill. A half grain is a fair average dose.

In most of the cases treated half-grain doses in the interval prevented the recurrence of the fever, though in about one-fifth of the cases, two or three attacks followed before the fever ceased.

Mr. Clark's experiences has convinced him that in all forms of intermittent fever and malarial neuralgias, picrate of ammonium is an available antiperiodic and a perfect substitute for quinine.

It has the following advantages: 1. It is much less expensive. 2. The dose is much smaller. 3. It does not produce the unpleasant effects that quinine does—headache, tinnitus, deafness, etc., nor does it disorder the digestion or cause nausea, as quinine is apt to do in large doses.—*Therap. Gazette*, April, '87.

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**NITROUS OXIDE CAUSING ANEMIA.**—Dr. F. R. Eccles, reports two cases in which profound anemia came on rapidly in the course of ten days following the administration of nitrous oxide for the anesthetic effect while a tooth was extracted. He believes that there was a causal relation between the two things.—*Canadian Practitioner*, June 1887.

## SOCIETY PROCEEDINGS.

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### ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

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Stated Meeting, April 5, 1886. Dr. Nelson in the chair.

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*Dr. Nelson* read a paper

REMARKS ON CANCER OF THE UTERUS (Vid. June No. p. 507.)

*Dr. Hardaway* mentioned a symptom which may or may not be of value in regard to the early diagnosis of uterine cancer, viz., that in many cases there is intense pruritus of the vagina. He had read a statement of that fact and his attention had been called to it during the last few years, and it had occurred with sufficient frequency perhaps to give it some weight. He thought it would be well to bear this in mind, in cases of pruritus.

He recollected a case of sarcoma of the skin, and sarcoma might be termed the first cousin to cancer, which remained localized for seventeen years. The diagnosis was made clinically at first, and it was afterwards confirmed microscopically. Dr. Heitzman, of New York, who is very fond of making a microscopic prognosis, stated at the time that the man would live perhaps three years, but he did not think he would live any longer.

*Dr. Briggs* had seen sarcoma terminate fatally in two or three years. He asked Dr. Nelson if he understood him to say that a fifty per cent solution of chloride of zinc was used frequently and that it was tolerated?

*Dr. Nelson* said the strength recommended was a thirty per cent solution, and only one application is made.

A tampon of cotton soaked with a thirty per cent solution is introduced and left for two or three days.

*Dr. Briggs* had used a much weaker solution and found it to be very painful to the patient.

*Dr. Nelson* suggested the question whether the preliminary use

of the thermo-cautery would not so far obtund the nerves as to make them insensible to the action of the chloride of zinc.

*Dr. Briggs.*—On what does Dr. Currier base his theory that these cancers are due to sexual excesses. Were these women professional prostitutes, many of them?

*Dr. Nelson* replied that it was not stated, but the fact that so large a proportion of them had borne a number of children would seem to imply that they were not prostitutes. It is proverbial that professional prostitutes do not bear very many children.

*Dr. Briggs* had had the impression that the disease bears no relation to venereal excesses, and that the women who bear the most children are the most chaste.

*Dr. Carson* said that so far as his experience went he could not call to mind a case of uterine cancer in a prostitute though he had seen a great many cases; and how it could be determined that excessive coition would cause the trouble was something that struck him as very strange.

*Dr. Hardaway* asked if it was not a fact that cancer occurs usually at a certain period of life, after a certain age.

*Dr. Nelson.*—Between thirty and sixty usually.

*Dr. Hardaway* asked if was not true that prostitutes rarely reach that age.

*Dr. Carson* said as a general thing they do not. It is not a common thing to find old prostitutes, although quite a number of them over fifty years of age, or at least beyond the cancer age might be found. Cancer is most common in women at about the age of forty, according to his experience.

*Dr. Briggs* said that in an institution in which he had had clinics for the last sixteen or seventeen years, conducted for the reformation of women who had lived a disorderly life previously, and who might be classed under the term just used, he recollected but one case of cancer. That was in an elderly Italian woman, who came into the institution, and was quickly removed. The cancer seemed to be more in the region of the vulva than of the uterus, and she was quickly removed and shortly afterward died, there might be some doubt about the diagnosis.

*Dr. Hulburt* said that at the Female Hospital there had come under his observation about two thousand prostitutes, in the last four years. He did not remember a single case of cancer of the uterus in a patient who had [come into the hospital classed as a



prostitute. As a matter of fact he did not think it a common thing for cancer to occur in prostitutes, as has been suggested here. Prostitutes do not as a rule live to the cancer age, and those of them who do live to that age have practically ceased to be prostitutes, because, as a rule, they are either so fearfully disfigured or so horribly diseased that they are incapable of fulfilling the functions of prostitutes.

*Dr. Carson* asked if he did not see a good many prostitutes who have reached the age of thirty-five.

*Dr. Hulburt* said that he had; but, as a general thing, when they reach this age they do not follow the vocation of prostitutes, or follow it irregularly. There were now in the hospital probably seventy-five women who would come under the term prostitute, and out of the seventy-five there were probably not fifteen over the age of thirty. Of course this would have a very important bearing upon the question of cancer occurring in that class of women; but in regard to this idea of excessive venery being a causative factor in cancer, he thought it amounted to nothing. If a woman has a little laceration of the cervix that is not properly attended to, that is a constant source of irritation, in such a case excessive venery may intensify a condition of congestion, which in the absence of coition might be overcome. The micro-photographs presented at the meeting of the A. M. A. last year demonstrated as clearly as pictures can that cancer may follow laceration of the cervix. So also anything that would interfere with the circulation in the uterus; old chronic peritonitis with adhesions, or where there is venous congestion of the uterus itself. These things might tend to develop cancer. But as to excessive venery being the cause of cancer that was a new idea.

*Dr. Grindon* said that during his term of service at the Female Hospital he saw several cases of cancer of the uterus, and he remembered that the superintendent called the attention of the assistants to the fact that all the cases that were seen were cases where there had been laceration of the cervix. One case of cancer of the uterus he remembered very well in a prostitute about forty years of age, who had a laceration. She also had tertiary syphilis, and died of hydro-thorax.

*Dr. Hulburt* asked if he thought the fact that the woman was a prostitute was the cause of the cancer, or if the laceration had something to do with it.

*Dr. Grindon* thought the laceration was decidedly the more important factor.

*Dr. Post* asked how *Dr. Hardaway* would explain the relation between the pruritus and cancer of the uterus.

*Dr. Hardaway* thought there was no actual relationship except that in cancer of the uterus there is a discharge quite early in the disease, and perhaps this discharge would account for the pruritus. He believed that gynecologists find pruritus quite common in uterine disease. Of course pruritus occurs in hundreds of cases where there is no cancer.

*Dr. Leete* remarked that there is a great deal of difficulty with our present knowledge in determining such a question as had been raised by the paper. He doubted whether anybody could indicate what are the first changes incident to cancerous growth, whether it has its origin in the nervous, circulatory, absorbent or secretory system. As to irritation cutting a figure in the development of cancer, there was a great deal in the study of cancer of the mouth and about the mouth to indicate that irritation, in part due to pressure and in part due to acrid substances, does prove productive of cancer. In regard to the occurrence of cancer in prostitutes, he had seen a large number of prostitutes considerably more than thirty-five years of age, judging from their own statements, coming in from the regular following of their calling, and he did not remember to have seen one of them with cancer of the uterus. He did remember seeing one, fresh from one of the lowest places in Philadelphia, whose uterus was in a gangrenous condition. She lived only two or three days, but in her condition it was utterly impracticable to state whether the disease was cancer or not. It was his recollection, that quite a percentage of them were over 35 years of age, very frequently suffering from the worst forms of venereal disease. But it seemed to him that between the prostitute and the married woman whose husband is brutal in his insistence upon venereal gratification, there is the widest possible difference. Among the brute creation, after impregnation has been effected, the female fights off the male; but the case is quite different among reasonable beings. In one case a woman had suffered rupture of the uterus; the uterus had been properly treated, the edges of the rent adjusted, and the woman was recovering in a very satisfactory way when the husband after the evening visit had been made by the surgeon in charge, insisted upon a connection with his wife, and the result

was that within two or three days she died from peritonitis that was freshly lighted up. That was the worst case he had ever heard of, but he had frequently heard the complaints of women when near confinement, of the brutal determination of their husbands. He could understand that in pregnancy, and particularly in advanced pregnancy, the damage done to the vaginal walls, and particularly to the neck of the uterus is very different from that which is possible from the same act to the unimpregnated woman.

In some instances there is a manifest disproportion between the length of the vagina and of the organ of the husband, and the suffering of the woman has been constant while they lived together. In Philadelphia, a very remarkable case was that of a woman who came for treatment at the hands of a gynecologist. She improved very rapidly after she came to the city; but when she returned home, she rapidly went back to the old condition and then would return for treatment, and the physician only solved the mystery in her case by seeing the husband and ascertaining the very great disproportion between them sexually.

The character of the lesion was a general bruising. The woman had a small, short and exceedingly shallow vagina, while the husband was a gigantic man, of unusual sexual development. The woman never had any children.

*Dr. Carson* said that he was sent for, shortly after he graduated, to see a woman who was suffering from profuse hemorrhage. The light and surroundings were bad, and there was little opportunity to see the exact condition, but so far as he could make out, there was a rent in the vagina. The next morning the physician in charge sent for *Dr. Pallen*, and upon removing the pledgets of cotton that had been put in to stop the hemorrhage, and examining the case carefully, it was found that the vagina was torn completely loose from its uterine connection upon fully one-half of its circumference. The woman was a widow. She denied having had any intercourse; but a few days after she asked the doctor who was attending her if he would stop and tell a certain man to come to her house; and if he did not, she would make it warm for him; and the doctor said that the man as much as acknowledged the relationship existing between himself and this woman. He was one of these very stout, heavily built fellows and a man who presented the appearance of being a good deal of a bull. There was no question in his mind, although this woman denied it at the time, but what the man had torn her in intercourse.



AMERICAN ASSOCIATION OF GENITO-URINARY  
SURGEONS.

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The first annual meeting of this new association of special workers was held at the Laurel House, Lakewood, N. J., May 17 and 18, 1887.

The president, Dr. E. L. Keyes, called the meeting to order at 11 a. m., and delivered an address of welcome. In speaking of the object of the organization, he said that the fact of a man's belonging to this association did not imply that he confined his practice to this special department; but it furnished him with an arena in which to develop his ideas and display his work for the friendly criticism of those familiar with these subjects and capable of suggesting and stimulating to more advanced thought and better work.

Dr. F. B. Greenough, of Boston, read a paper giving "A few Statistics on the Comparative Frequency of the Chancroid." He noticed that in spite of the distinctive nature of the chancroid as given in the text-books, the statistics of different observers varied so much as to evidence that they must have used different systems of classification. In spite of this discrepancy, however, it was apparent that the chancroid had diminished in frequency as compared with the occurrence of true chancres, and that it occurred more frequently in hospital than in private practice. He gave data accumulated in service at the Boston Dispensary, as well as from private practice, both of which sets of cases showed diminution in the relative frequency of chancroids. He thought this due in part to a change in type of the disease and in the severity of the cutaneous manifestations of syphilis. Such lesions as herpes progenerialis and inflammation of follicles of the shaft of the penis, were not understood by the older writers, and were diagnosed as chancroids by them, but a more accurate diagnosis now removed these from the number.

He thinks that now virulent buboes are not more common with chancroids than with true chancres, probably owing to the fact, that caustics are less generally used in the treatment of the chancroids than was formerly the case. He thinks further that the diminished frequency of the chancroids is due to the fact the cautery is not so constantly applied to every venereal sore, not a typical chancre.

Drs. Sturgis, R. W. Taylor, Hyde, Morrow and Rockwell all agreed with the author as to the diminished frequency of the chancroid.

Dr. Hyde insisted upon the importance of a more general recognition of the need of more time to form an opinion whether a given lesion would be followed by manifestations of syphilis.

Dr. Otis and the president did not approve of such general condemnation of cauterization, regarding it as good practice to cauterize virulent sores within the first ten days.

Dr. E. L. Keyes, the president, then read a paper on "Supra-pubic Cystotomy for Vesical Tumors and large Calculi." He favored the operation for cases of this sort, but did not think that it should be adopted as the usual one for stone, and regarded it as especially objectionable for children. He described his method of operating, a most essential feature of which he thinks to be the use of perineal drainage by puncture, probe and catheter, a step which makes safe and effective the application of the vesical suture and removes the danger of an obstinate fistula remaining after the supra-pubic section.

Dr. A. T. Cabot, of Boston, read a paper reporting "A Case of Hysterectomy for the relief of Pyelitis from Obstruction," due to pressure of a pelvic tumor upon the ureters. The result of the operation was completely successful.

Dr. Geo. Chismore, of San Francisco, sent a paper on "Some Cases of Pyelitis, in which frequent and painful Micturition was the chief Symptom." He believed that in many cases the diagnosis of pyelitis could be made only by exclusion.

At the evening session Dr. J. H. Brinton read a paper "On Horny Growths of the Penis." He exhibited a specimen from the penis of a man which had started from a wart and had existed for more than four years. The wart itched occasionally and he had scratched it on that account. It had gradually turned into a horny material. It gave no trouble except by mechanical interference with coition. The growth came from the base of the glans at the coronary border, and was one and seven-eighths inches long, and one and three-eighths inches in circumference; it was curved forward.

Dr. John P. Bryson, of St. Louis, then read a paper on "The Choice of Operation for the Removal of Vesical Calculus in Cases Complicated by Prostatic Obstruction." He thought too little attention had been paid to the influence upon an enlarged prostate of the cutting operation for the removal of calculi. In four cases in his own practice and in one which he had seen in the practice of a friend, the ages ranging between sixty-four and seventy-four, the

results had been very satisfactory. In three cases he had had the opportunity to examine the condition at a subsequent operation, and found that the enlarged prostate had been reduced one-fourth to one-third, and in neither of the five cases was there now any residual urine of any notable amount.

The president remarked that in spite of the satisfactory result of the five cases reported by Dr. Bryson more extended statistics showed that the crushing operation is more generally successful with old people and is therefore to be chosen.

Dr. Bryson said that the cutting operation had not been the operation of choice in either of his cases, but having noticed the favorable effect upon the hypertrophied prostate he thought it worth while to call attention to it.

Dr. P. A. Morrow read a paper on "Idiosyncrasy as Affecting the Specific Treatment of Syphilis. While recognizing the just claim of mercury and potassium iodide to be considered specific in the treatment of syphilis, he found their action interfered with in a good many cases by individual idiosyncracies, which might be manifested in various modes and degrees of intensity: 1. In an abnormal susceptibility to their physiological or toxic effects. 2. By the production of incidental ill effects. 3. In an insensibility or failure on the part of the system to respond to the curative action of these drugs.

Dr. R. W. Taylor, of New York, related some observations "On the Use of the Oil of Wintergreen in the Treatment of Gonorrheal Rheumatism," giving the history of some twenty cases in the Charity Hospital. Several of these cases were old chronic cases and were little benefited by this or by any other treatment. The other cases were very much benefited, and most of them recovered entirely.

Wednesday morning the first paper was read by Dr. F. N. Otis, "On Temporary Overstrain of the Bladder, producing Chronic Retention of the Urine." He related a number of cases from his own practice illustrating the subject, and urged the importance of the prompt removal of the cause of acute retention in view of the serious character of the results.

Dr. J. N. Hyde, of Chicago, read a paper on "Early Syphilitic Epididymitis."

Dr. A. T. Cabot, of Boston, reported two cases of "Prostatotomy for Obstruction," one of which was followed by almost complete recovery of the function of the bladder, the other, giving a satis-



factory result at first, was attended with some incontinence some months later.

Dr. Keyes, of New York, then read "A plea for the more General Use of Nitrate of Silver in the Deep Urethra." Most of the members of the association present expressed a hope of better results from deep urethral injections than had yet been attained. As a simple means of relieving the discomfort which follows such treatment Dr. J. H. Brinton has his patients stand by the basin and allow a small stream of water to run upon the corona of the penis.

Dr. R. W. Taylor exhibited "Sections of Tubercular Testes with Bacilli, and the Coexistent Bacilli in the Sputum," after reading a report of a case of "A Rare Form of Septicemia Following Internal Urethrotomy."

The Association then adjourned to meet next year, time and place to be announced hereafter.

**INFLUENCE OF DIET ON HEADACHE.**—Dr. Haig considers that the cause of megrim is uric acid. The reasons given for this opinion are founded on: (1) the clinical relationship of megrim and gout; (2) the remarkable way in which this headache is kept in check by a diet poor in nitrogen, or is cured by calomel or salicylic acid, iodide of potassium, or even colchicum; (3) the signs of gout that are found in the family history of patients who suffer from these headaches. The subjects of these headaches do not suffer from any of the acute symptoms of gout, but rather from what is termed by some "quiet gout." In many cases it has been noticed that these patients suffer from an irritable, hyperesthetic and easily tired eye, a condition recognized by Mr. Hutchinson, as evidence of a gouty tendency. Dr. Haig now treats megrim by means of small doses of salicylate of sodium, two or three grains being given every quarter of an hour, for three or four doses, as soon as the headache commences. By this means the headache goes away entirely, and shows no sign of return for a considerable period. As to diet, the author recommends abstinence from butcher's meat, cheese, beer, wine, etc. Many patients who leave off meat are free, but directly they recommence eating meat they have a return, and consequently more importance is attached to the regulation of the diet than to the use of drugs for the relief of the headache.—*Practitioner; Jour. of Reconstructives.*

## SELECTIONS.

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### OXIDIZATION OF FILTH IN WATER.

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Very wonderful is the tenacity with which the suggestion that running water is purified by oxidization—a mere suggestion, unsupported by scientific evidence—has held on to the professional as well as the popular mind in America, long since it was refuted and discarded by the best European authorities. Notwithstanding this, we believe there is little, if any, disagreement on the subject between European and American authorities. Few learned members of the medical or of the scientific faculty believe in this accommodating theory of the polluters of streams and the purveyors of their water, to whom Dr. Frankland so pungently refers, as quoted below by Dr. Willis G. Tucker, in a paper read before the Albany Institute.

He says: "As regards the natural purification of polluted waters, while the tendency of all organic matter, animal or vegetable, is towards ultimate death and final destruction by oxidization, it is as yet impossible to say how rapidly such a destruction goes on in many cases. The Rivers Pollution Commission mixed urine with water, in the proportion of one part of urine to 3,077 of water, agitated the mixture from time to time, and analyzed samples. At the end of the eleventh day the improvement in the water was so inconsiderable that other experiments were made in which a stream of impure water was allowed to flow from one vessel to another, and was thus freely exposed to the air, and as a result of these experiments the commissioners concluded that purification by natural oxidization had been greatly overrated, and that 'there is no river in the United Kingdom long enough to secure the oxidization and destruction of any sewage which may be discharged into it, even at its source.' They also conclude that 'rivers which have received sewage, even if that sewage has been purified before its discharge, are not safe sources of potable water.'" (Rivers Pollution Commissioners' 6th Report, pp. 134.8). Upon this point Frank-

land says: 'Twelve years ago there was a general impression among chemists and others that polluted water quickly regained its original purity by spontaneous oxidation. The opinion had no foundation in quantitative observations; indeed, there was not a single experimental fact to prove it. \* \* \* The impression had gained currency from the improved appearance of a polluted river after a flow of a few miles. \* \* \* Two classes of persons strongly interested in its acceptance were chiefly instrumental in the origination and diffusion of this opinion. These were, first, the polluters of running water, and, secondly, water companies drawing their supplies from below the sewer outfalls of towns.' (*Journal Chemical Society*, May and July, 1880). Such improvement as does take place in running streams probably depends more upon the part played by fresh water plants and micro-organisms than upon direct oxidation, and of course no accurate conclusion can be reached as to the effect of these varying and little understood agencies. Mere dilution also doubtless accounts for the apparent disappearance of much noxious matter. Professor William Ripley Nichols, in his *Water Supply*, italicizes the following statement: 'The apparent self-purification of running streams is largely due to dilution, and the fact that the river seems to have purified itself at a certain distance below a point where it was certainly polluted is no guaranty that the water is fit for domestic use.'

To this we should add, in repetition of what we have steadily maintained in accounting for the often alleged disappearance of sewage, by analytical test, from rivers such as the Passaic and Illinois, without proportional dilution, that the work of aquatic vegetation and animal life (partly referred to by Dr. Tucker above) and the perhaps equally important agency of the chemicals drained into rivers from the soil, as seconded by the settling process in level reaches of their course, afford a satisfactory explanation of all the spontaneous purification that may, in exceptional cases, be really established. The Passaic river, for instance, in the few miles stretch above Newark by which, according to Prof. Leeds, it gets rid of its filth (though if it does, the nose is no judge of filth) is practically an estuary and a settling basin, abounding in vegetation and other organic life, and in the wash of soils.

That oxygen is one of the most powerful decomposing and disinfecting agents of Nature, is of course unquestioned; but there are



many ways to escape its search, of which hiding in deep water is among the most familiar to engineers. To pursue the occulted filth of a river to its depths is impossible to oxygen under the ordinary atmospheric pressure and without ample avenues opened for it throughout the water. The water must be opened throughout to the air, by force, and the air injected under a pressure of several atmospheres, in order to accomplish an effective oxidation of oxidizable impurities; and this process must be a protracted one, in case the impurities are of considerable amount. After coagulating and filtering out the bulk of them, a vigorous oxygenation of the water under pressure, charging it highly as it enters the mains and while it remains there, has been found adequate to dispose of the minute remnants of oxidizing matter, to the best standard of nature-purified springs. At its best, therefore, oxidation is but a finishing process in water. As a scavenger dredge oxygen is *not* a success.

An ably edited periodical, the *American Bottler*, adds to some of the statements we have quoted, this guarded and prudent suggestion:

“To what extent therefore, must a polluted water be diluted before it is safe to use, is a question of the greatest interest, but one to which no answer can as yet be given. Nor can we prove that the specific poisons of certain diseases—admitting their existence—may not contain living organisms capable of rapid multiplication, nor can we tell for how long a period or under what conditions these organisms may retain their vitality. In this absence of positive knowledge, but in the light of countless facts which all but prove our supposition true, we had best err; if err we must, on the safe side, avoiding the use of polluted water.”—*Sanitary Era*, Feb. 1, '87.

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## INVESTIGATING SPIRITUALISM.

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After an extended and painstaking investigation, a commission appointed by the University of Pennsylvania, to see what there was in “modern spiritualism,” have concluded their labors. They find that it is made up of equal parts of humbug and jugglery, calculated to deceive only the credulous or feeble minded. The appointment of this commission, it will be remembered, is the result of a codicil to the will of the late Henry Seybert, of Philadel-

phia, whereby the sum of \$60,000 was left to found a chair of philosophy in the university, on the condition that it should lend its name to the inquiry. In his later years, Mr. Seybert fell a prey to the wiles of a coterie of slate writers, spirit-form projectors, and banjo players, and he believed that such an investigation would prove spiritualism to belong to the sciences, rather than, as now, to the arts.

The committee appointed by the university was composed as follows: Dr. Joseph Leidy, professor of anatomy and a well known naturalist; George A. Koenig, professor of chemistry; the Rev. George S. Fullerton, professor of moral and intellectual philosophy; Coleman Sellers, civil engineer; Dr. S. Weir Mitchell, the neurologist; Dr. William Pepper, provost of the university; Prof. Robert E. Thompson; Dr. Horace Howard Furness, one of the trustees of the university.

In their summing up they say they did not, in all their investigations, discover a single novel fact, and are "forced to the conclusion that spiritualism, as far, at least, as it has been shown before them, presents the melancholy spectacle of gross fraud, perpetrated upon an uncritical portion of the community."

This is a broad and sweeping statement, and to the minds of many who do not believe in supernatural manifestations, but, nevertheless, have been mystified by certain phenomena, oft recurring, and more or less related to the subject, it is not likely to prove altogether satisfactory. Even if Slade and the other "mediums" examined were unable, as the commission say, to do anything that could not be equally well done by an acknowledged and skilful juggler, like Heller, whom they were so fortunate as to have with them, it remains that there are certain phenomena that, from the time of Emanuel Swedenborg down to the present, have never been satisfactorily explained; and it would seem, since so many have been and are puzzled to account for them, not beneath the dignity of science to separate them from the mass of humbug by which they are surrounded, and enter upon their explanation.

Among these phenomena may be classed "table tipping and walking," the curious and well authenticated "knocking," and, above all, what is known as "clairvoyance." Is the Seybert commission prepared to say that these manifestations are necessarily fraudulent?

If so, they should have their attention called to the findings of

an equally reliable commission, formed some years ago, of Heidelberg professors, who, after the same careful investigation, recorded the contrary opinion; one of their number, Herr Heinemann, Professor of Physics in Heidelberg University, writing an interesting and instructive little treatise on the result of his investigations, where, under the title of "The Fourth Dimension of Space," he attempts to formulate a theory to account for their existence. He does not find in them any supernatural attributes; but, on the contrary, regards them as the expression of a natural force, the characteristics of which he attempts to explain, while admitting ignorance as to its origin.

Wholly outside the circle of professional spiritualists and jugglers, there are those who possess, unconsciously, strange powers. Witnesses testify that tables follow them about a room, and other phenomena, unasked, as they are uncanny, come at unexpected moments. Intelligent and incredulous persons have been astounded by the revelations made them by certain so-called "clairvoyants" as to circumstances and happenings in their earlier lives; things of little consequence, of which even their intimate friends were never apprised, and of which it seems incredible that these "clairvoyants" could have any means of informing themselves in advance.

In his "Transcendental Philosophy," that eminent physicist, Baron Karl von Reichenbach, attempts an explanation of similar phenomena, which he attributes to a force which he calls "odic," or the force of "od." "Od," says an expounder of his theory, "pervades all nature, and is akin to the great physical forces of electricity, magnetism, chemical affinity, heat, light, etc., and always accompanies them, so that wherever they are in action, od is developed, and the strength of its most active development is often in proportion to the energy of their action. As in electricity and magnetism there is a polar dualism, so also there is in od. It has two poles, the positive and negative, which keep company respectively with the electric and magnetic positive and negative poles. The human body is od-positive on the left side and od-negative on the right. This gradation of amorphous bodies from od-negative to od-positive is called the od-chemical order, and is found to correspond with the electro-chemical order established by Berzelius. The odic radiation can be felt and seen by certain persons called 'sensitives,' who have a peculiar nervous susceptibility; while the majority of mankind, called 'non-sensitives,' are entirely insensi-



ble to the odic influences and impressions. Odic sensitiveness has many symptoms, among which are liability to somnambulism, capability of being magnetized, inability to sleep on the left side, in the northern hemisphere, dislike of strong yellow colors, fondness for blue as opposed to yellow, dislike of crowds and close rooms and dislike of fatty and fondness for sourish victuals. The causes of many singular phenomena not hitherto understood are explained by the odic theory."

Immanuel Kant, the great metaphysician, recognized the existence of physical manifestations, and so classified them that they might be completely separated from the knowable; and, though he was unwilling to admit the conclusions of Fichte as expressed in the latter's "Revelations," he virtually admitted that he was not altogether prepared to deny the truth of what related to the phenomena. The spirit of the age tends toward investigation. Supposing "spiritualism" is a fraud, as this committee says it is, and innumerable other investigations have shown it to be, may there not be something in the so-called "second sight" and other physical phenomena? May they not be the expression of a natural force, not any more related to the supernatural than are electricity and magnetism?—*Scientific American*.

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## THE NEW ILLINOIS MEDICAL PRACTICE LAW.

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The following is the full text of the act passed in the closing hours of the last Illinois legislature.

SECTION 1. *Be it enacted by the People of the State of Illinois, represented in the General Assembly,* That no person shall practise medicine in any of its departments in this state unless such person possesses the qualifications required by this act. If a graduate in medicine, he shall present his diploma to the State Board of Health for verification as to its genuineness. If the diploma is found genuine, and from a legally chartered medical institution in good standing, and if the person named therein be the person claiming and presenting the same, the State Board of Health shall issue its certificate to that effect signed by all of the members thereof, and such certificate shall be conclusive as to the right of the lawful holder of the same to practise medicine in this state.

If not a graduate, the person practising medicine in this state shall present himself before said board and submit himself to such examination as the board may require, and if the examination be satisfactory to the board, the said board shall issue its certificate in accordance with the facts, and the lawful holder of such certificate shall be entitled to all the rights and privileges herein mentioned.

SEC. 2. The State Board of Health shall organize within three months after the passage of this act, it shall procure a seal, and shall receive through its secretary, applications for certificates and examinations; the president and secretary shall have authority to administer oaths, and the board to take testimony in all matters relating to its duties; it shall issue certificates to all who furnish satisfactory proof of having received diplomas or licenses from legally chartered medical institutions in good standing, as may be determined by the board; it shall prepare three forms of certificates, one for persons in possession of such diplomas or licenses, the second for candidates examined and favorably passed on by the board, and a third for persons to whom certificates may be issued as hereinafter provided in section 12 of this act.; it shall furnish to the county clerks of the several counties a list of all persons receiving certificates. In selecting places to hold its meetings, it shall, as far as is reasonable, accommodate applicants residing in different sections of the state, and due notice shall be published of all its meetings for examination. Certificates shall be signed by all the members of the board, and the secretary of the board shall receive from the applicant a fee of five (5) dollars for each certificate issued to such graduate or licentiate. Graduates or licentiates in midwifery to pay the sum of two (2) dollars for each certificate. All such fees for certificates shall be paid by the secretary into the treasury of the board.

SEC. 3. The verification of the diploma shall consist in the affidavit of the holder and applicant that he is the lawful possessor of the same, and that he is the person therein named. Such affidavit may be taken before any person authorized to administer oaths; and the same shall be attested under the hand and official seal of such officer, if he have a seal; and any person swearing falsely shall be deemed guilty of perjury, and punished accordingly. Graduates may present their diplomas and affidavits as provided in this act, by letter or by proxy, and the State Board of Health shall issue its certificate the same as though the owner of the diploma was present.

SEC. 4. All examinations of persons not graduates or licentiates, shall be made directly by the board, and the certificates given by the board shall authorize the possessor to practice medicine and surgery in the State of Illinois.

SEC. 5. Every person holding a certificate from the State Board of Health shall have it recorded in the office of the clerk of the county in which he resides, within three months from its date, and the date of recording shall be indorsed thereon. Until such certificate is recorded as herein provided the holder thereof shall not exercise any of the rights or privileges conferred therein to practise medicine. Any person removing to another county to practise shall record the certificate in like manner, in the county to which he removes, and the holder of the certificate shall pay to the county clerk the usual fees for making the record.

SEC. 6. The county clerk shall keep, in a book provided for the purpose, a complete list of the certificates recorded by him, with the date of the issue of the certificate. If the certificate be based on a diploma or license, he shall record the name of the medical institution conferring it, and the date when conferred. The register of the county clerk shall be open to public inspection during business hours.

SEC. 7. The fees for the examination of non-graduates shall be as follows: Twenty (20) dollars for an examination in medicine and surgery; ten (10) dollars for an examination in midwifery only; and said fees shall be paid into the treasury of the board. If an applicant fails to pass said examination his or her fee shall be returned. Upon successfully passing the examination the certificate of the board shall be issued to the applicant without further charge.

SEC. 8. Examinations may be made in whole or in part in writing, and shall be of an elementary and practical character, but sufficiently strict to test the qualifications of the candidate as a practitioner.

SEC. 9. The State Board of Health may refuse to issue the certificates provided for in section 2 to individuals guilty of unprofessional or dishonorable conduct, and it may revoke such certificates for like causes. In all cases of refusal or revocation the applicant may appeal to the Governor, who may affirm or overrule the decision of the board, and this decision shall be final.

SEC. 10. Any person shall be regarded as practicing medicine,



within the meaning of this act, who shall treat, operate on, or prescribe for any physical ailment of another afflicted. But nothing in this act shall be construed to prohibit service in cases of emergency or the domestic administration of family remedies. And this act shall not apply to commissioned surgeons of the United States Army, Navy, or Marine Hospital Service in the discharge of their official duties.

SEC. 11. Any itinerant vendor of any drug, nostrum, ointment or appliance of any kind, intended for the treatment of disease or injury, or who shall, by writing or printing or any other method, profess to cure or treat disease or deformity, by any drug, nostrum, manipulation or other expedient, shall pay a license of one hundred (100) dollars per month into the treasury of the board, to be collected by the State Board of Health, in the name of the People of the State of Illinois for the use of said Board of Health. And it shall be lawful for the State Board of Health to issue such license on application made to the State Board of Health, such license to be signed by the President of the Board, and attested by the Secretary of the Board. Any such itinerant vendor who shall vend or sell any such drug, nostrum, ointment or appliance without having a license so to do, shall, if found guilty, be fined in any sum not less than one hundred dollars, and not exceeding two hundred dollars for each offense, to be recovered in an action of debt before any court of competent jurisdiction. But such board may for sufficient cause refuse such license.

SEC. 12. Any person practicing medicine or surgery in the State without the certificate issued by this board in compliance with the provisions of this act, shall for each and every instance of such practice forfeit and pay to the people of the State of Illinois for the use of the said State Board of Health the sum of one hundred (100) dollars for the first offense, and two hundred (200) dollars for each subsequent offense, the same to be recovered in an action of debt before any court of competent jurisdiction, and any person filing or attempting to file as his own the diploma or certificate of another, or a forged affidavit of identification, shall be guilty of a felony, and upon conviction, shall be subject to such fine and imprisonment as are made and provided by the statutes of the State for the crime of forgery; Provided, that all persons who have been practising medicine continuously for ten years within this state prior to the taking effect of the act to which this is an amendment,

and who have not under said original act obtained a certificate from said Board of Health to practise medicine in this state, shall, upon proper application to said Board of Health, receive such certificate, unless it shall be ascertained and determined by said Board of Health that the person so applying for a certificate is of immoral character, or guilty of unprofessional or dishonorable conduct, in which case, said Board of Health may reject such application: And, provided, that such application for a certificate shall be made within six months after the taking effect of this act, and all persons holding a certificate on account of ten years' practice shall be subject to all the requirements and discipline of this act, and the act to which this is an amendment, in regard to their future conduct in the practice of medicine the same as all other persons holding certificates and all persons not having applied for or received such certificate within six months after the taking effect of this act, and all persons whose applications have for the causes herein named been rejected or certificates revoked, shall, if they shall practice medicine, be deemed guilty of practicing in violation of law, and shall suffer the penalties herein provided.

SEC. 13. Upon conviction of either of the offenses mentioned in this act, the court shall, as part of the judgment, order that the defendant be committed to the common jail of the county until the fine and costs are paid, and upon failure to pay the same immediately, the defendant shall be committed under said order. Provided, that either party may appeal in the same time and manner as appeals may be taken in other cases, except that where an appeal is prayed in behalf of the people, no appeal bond shall be required to be filed, whether the appeal be from a justice of the peace, or from the county or circuit court, or from the appellate court. But it shall be sufficient, in behalf of the people of the State of Illinois, for the use of the State Board of Health, to pray an appeal, and thereupon appeal may be had without bond or security.

SEC. 14. All acts and parts of acts inconsistent or in conflict with this act, are hereby repealed.

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#### CLINICAL EXAMINATION OF GONOCOCCI.

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W. J. Sinclair in the course of a very interesting paper on "Gonorrheal Infection in Woman" (*Medical Chronicle* July, 1887.

pp. 278,9), makes the following suggestion of a method for clinical examination of the discharges for gonococci.

"A good microscope, with a  $\frac{1}{12}$  homogeneous immersion lens is an essential provision. \* \* \* The ordinary apparatus and reagents for microscope work are supposed to be at hand in carrying out the following rapid clinical method of *looking for a diplococcus* in a suspected discharge.

A thin cover glass carefully cleaned is held ready in a pair of suitable forceps, and a speck of the suspected pus is spread over a small area of its surface. This is quickly dried by holding it in the current of hot air high above the flame of a spirit lamp. Over the dry matter on the glass a drop of a concentrated alcoholic solution of methyl violet is let fall and allowed to spread. After a momentary pause the superfluous solution is got rid of by turning the cover glass on edge and bringing it in contact with some clean blotting paper. The glass now covered with a thin film of the dye solution is again raised for a few seconds above the spirit lamp, not long enough for it to dry. The dye is next washed away, as well as it can be, by bringing the cover-glass under a stream of distilled water from a wash bottle. The cover-glass with the adherent stained film of discharge has now to be dried. The drop of water which adheres to it can be got rid of by bringing the object edgewise on to a piece of blotting paper as before, but still the glass remains wet, and even in the heat of the spirit lamp it will take perhaps a minute to dry. This time may be saved, without drawback to the preparation, as far as rapid clinical inspection is concerned, by immersing the wet cover-glass momentarily in absolute alcohol, which should be kept in readiness in a suitable vessel, such as a small wide-mouthed stoppered bottle. When the water is replaced by the alcohol, the drying above the flame of the spirit lamp takes only a few seconds. A small drop of Canada balsam dissolved in benzol is now let fall upon the centre of the cover-glass, which is at once applied to the slide previously cleaned and warmed. The preparation is now complete and ready for examination. With a little experience of this method and when the appliances are all held in readiness, the practitioner will find that this method of looking for diplococci takes little more time than the ordinary testing for urine. There are obvious objections to the process, if it be looked upon as a method of scientific research, but that is not its object. A quantitative analysis of the sugar



in urine by even the shortest process requires time, but a qualitative analysis can be and has often to be made in the course of a consultation. So it may be desirable to know, in the course of a consultation, whether a discharge contains diplococci, and if it does, the overwhelming probability will be that the case is gonorrheal, the anamnesis, and the clinical features being available to perfect the diagnosis. For this purpose I maintain that the method of examination which I have described is sufficient.

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PICRATE OF AMMONIA IN MALARIAL FEVER.—S. E. Fuller reports that of seven cases in which he had used picrate of ammonia he obtained marked benefit in all but one. The unpleasant symptoms disappeared very promptly but he was surprised to find that for some days, after the discontinuance of the drug there was a marked yellowish or orange coloring of the skin and sclerotic.

Dr. Fuller inquires whether any of the readers of the *Record* can inform him how long the yellow discoloration is likely to remain.

By reference to the U. S. Dispensatory (13th edition) p. 1557, we find the following "A curious effect of these salts, first observed by Dr. Moffat, is to produce in many cases, a temporary yellowness of the skin and conjunctiva, as in jaundice. The effect is generally induced when about 12 grains of the acid have been taken. The urine also becomes orange-colored. The color disappears in two or three weeks after ceasing to use the medicine.

DIET FOR OBESITY.—DUJARDIN BEAUMETZ gives the following diet table for the reduction of obesity. Breakfast at eight o'clock 25 grammes of bread 50 grammes of cold meat, 200 grammes of weak tea without sugar. Second breakfast, or lunch, at noon, 50 grammes of bread, 100 grammes of meat or of ragout, or two eggs, 100 grammes of green vegetables, 15 grammes of cheese, fruit at discretion. Dinner at seven o'clock. No soup, 50 grammes of bread, 100 grammes of meat or ragout, 100 grammes of green vegetables, salad, 15 grammes of cheese and fruit at discretion. Use purgatives frequently, either in the form of purgative mineral waters, or in the form of laxative pills or powder. Exercise appropriate to the strength of the subject massage.—*L'Union Méd.*, 7 Jan., '87.

## TRANSLATION.

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### VEGETATIONS UPON THE UMBILICUS OF THE NEW-BORN.

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It is not a rare thing to see developed in the new-born, during the few days immediately after the fall of the cord, upon the cicatrix itself a little vegetation having the appearance and structure of a common fleshy pimple. It increases very slowly. If the umbilicus is much depressed, the bottom is concealed by the edges of the cavity. In this case the vegetation is not perceived at the outset, and it is only after two or three weeks that it manifests itself under the form of a little rosy tumor, moist, sometimes globuliform, sometimes cylindrical or conical, capable of attaining a length of a centimetre and a half; when it is less, it is necessary to depress the edges of the umbilicus in order to make it protrude externally. Its consistence is firm; it appears indolent.

Left to itself, under the influence of compression and friction this production becomes inflamed and destroyed by sphacelus.

But it is better to avoid these little complications. So it has been advised to remove these vegetations either with scissors or with a ligature, or by cauterization by nitrate of silver.

Fortunately there is no necessity of resorting to such operation, and success generally attends much simpler means. At the *Hospice des Enfants Assistés* where many of these cases have been observed, M. Sevestre employs tannin only, covering the vegetation every morning with a pinch of the powder. Care must be taken that the powder reaches the circular groove around the base of the growth. A light bandage is applied to prevent chaffing.

The next day the powder is moistened with serous exudation from and around the growth. Scraping with the finger nail or the scissors one removes a crust formed of compacted tannin, and a certain thickness of the mortified tumor. The surface laid bare is slightly bloody. This is bathed with warm water for a few minutes and a new application is made. The action is very rapid indeed. Every morning a new crust falls, and after the seventh or eighth day nothing remains of the tumor; cicatrization is complete. —*Jour. de Méd. et de Chir. prat.* June, 1888.

## FOREIGN CORRESPONDENCE.

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### LETTER FROM GREIFSWALD.

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GREIFSWALD, May 16, 1887.

PSEUDO LEUKEMIA ACCOMPANYING POLYARTHRITIS DEFORMANS.

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The following interesting case is at present in the Medical Clinic of Prof. Mosler, M. D., in Greifswald. He has furnished me the following notes bearing on the case.

*History.*—Mrs. F. S., aged 33, family history good. She was sick, when a child, with measles; since then she has enjoyed excellent health. She married and became mother of two healthy children, who are still in good health. In October, 1883, whilst working in the field she “took cold.” An acute polyarthritis rheumatica resulted, commencing in the right elbow and left hip-joint, and then involving nearly all the joints of her body. Rest and medical attendance brought improvement within three weeks. She quit bed, and with difficulty endeavored to attend to her household duties. Nine months later she “took cold” again and relapsed into the original condition. The fever soon disappeared, and the acute condition became chronic in spite of treatment. The prolonged rest in bed caused atrophy of the muscles of the extremities, and movement of the joints became very limited. Gradually the polyarthritis rheumatica changed to polyarthritis deformans. The knee-joints thickened and became ankylosed. The carpo-phalangeal joints stiffened, and the individual phalangeal bones were drawn at different angles to each other. The rounded, thickened elbow and ankle-joints were only slightly movable. In this condition the patient came to the polyclinic June 1, 1886. Her appetite then was comparatively good. She was slightly obstipated. Patient never had any trouble or pain in precordial region. She complained of pain in the hypochondriac regions. A feeling of heaviness and fulness is referred to these regions. An inter-



mittent or malarial fever is denied by the patient. Syphilis or any venereal disease is denied. Her menstruations have always been regular and normal, until her present complaint commenced. Since then they have become irregular and scanty. A week later patient was admitted into the hospital.

*Status presens.*—Patient is middle-sized and very much emaciated. Her color is yellowish grey. The face is small, blue rings surround the eyes, and her features indicate great suffering. An icterus corneæ is absent. The mucous membranes are pale and anemic. The intercostal spaces are slightly sunken in, the abdomen is flabby, not bulging or retracted. The various joints of her body are thickened, rounded and deformed. Motion in them is very little, and accompanied with pain. Her appetite is poor, the tongue is coated. She complains of lancinating pains in the region of the pylorus. The excretions from her bowels react neutral, nothing abnormal to be found in them. The liver is very much enlarged, especially the left lobe; it feels very firm and hard to the touch; it reaches nearly to the umbilicus. The spleen is also enlarged, feels firm and hard to the touch. Neither liver nor spleen are painful on pressure. In the inguinal regions enlarged glands are to be seen and felt. Other lymphatic glands are not enlarged. The position, size and sound of the heart are normal. A venous murmur is to be heard in the jugular veins. The examination of the lungs reveals nothing abnormal. Cough and expectoration are absent. The urine shows small traces of albumen. There are no nervous symptoms. The treatment since June, 1886, has been rest, good diet, warm baths, faradization of the muscles and tonic remedies, such as cod-liver oil, iron, arsenic, etc. Her condition has not bettered any; on the contrary, she collapses pretty frequently, and a dangerous epistaxis has taken place. The examination of the blood reveals nothing abnormal as regards the proportion of white to red corpuscles.

A. J. KANNE.

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CARL FRIEDLAENDER, best known in this country as the author of a volume entitled "The use of the Microscope in Clinical and Pathological Examinations" died in May.

A SPECTACLE MISSION has lately been established by Dr. Edward Waring for the purpose of furnishing suitable glasses to the poor in London.

## COMMUNICATIONS.

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### CALOMEL IN DIPHTHERIA.

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CRAB ORCHARD, Mo., May 20, 1887.

ED. COURIER.—Enclosed find the “necessary evil” for the *COURIER OF MEDICINE*. I wish the journal continued. It is a good, first-class journal, replete with reliable news, and contributions from the medical profession, to which the practitioner may at any time turn, with full certainty of finding in its most recent aspect, information on the general principles in the practical treatment of disease.

My attention was attracted to an article in the editorial department of the April number of the *COURIER* under the heading of “Back in the Woods,” in which the writer in a letter to the publisher said: “I do not want the journal continued. It is a pretty good journal but many of its contributors are back in the woods. Calomel in the treatment of diphtheria, and venesection for puerperal convulsions, savors too much of ye olden time.” I live in one of the “metropolitan centres” of Western Missouri, but, unlike my neighbor, the author of the above, I have used calomel successfully as I thought, in several cases of diphtheria. I give it in large doses, frequently, say from two to three hours apart, until free catharsis is produced. Then the intervals between the doses are lengthened so as to maintain two or three stools a day. Of course caution should be used in maintaining the catharsis; at the same time the patient should be sustained by the lightest and most nutritious diet; and other measures should be used as adjuvants to meet special indications which may arise. The rules of treatment appropriate for diphtheria are various, and there seems to be no sheet anchor, and my observation and trial of all the different plans of treatment has so frequently disappointed me that I concluded to give hydrarg. chlor. mit. a thorough trial, and I was successful beyond my most sanguine expectations. Now, it matters not to me, whether the above treatment endorses the practice of the ancients,

or maintains the modern theories, I shall continue in its use until I am convinced by practice or by the medical profession that some other treatment is more efficacious. Very respectfully,

JNO. T. HAMILTON, M. D.

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### PASS HIM AROUND.

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EDITOR COURIER: Believing that the following will be of interest, and perhaps profit also, to the medical profession, I send it for publication in your Journal. On April 26, last, in response to a card sent out by one "S. M. Miller, M. D., P. O. Box No. 1142 Philadelphia," offering medical books at greatly reduced prices, myself and another physician of this place, sent \$14, by money order, to said Miller; and after waiting nearly a month without hearing from him, sent a letter of inquiry to the Post Master at Philadelphia. Soon afterward, we received a card from Miller saying, "our books would be forwarded as soon as they could be bound. Two weeks later we again wrote him but up to this time, now ten weeks, no books and no replies have been received. For the future protection of the profession we ask you to publish this, and hope all other Medical Journals throughout the United States and Canada, will copy same.

Respectfully.

Dallas, Texas July 7, 1887.

J. D. PARSONS.

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### A SPLENIC DISCORD.

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A ductless gland is the spleen,  
In left hypochondrium seen,  
Oblong, and small in size,  
Dark-bluish-red to the eyes.  
But what is its function—I ween ?  
Parenchymatous body they claim;  
Pathologists talk in this strain;  
'Tis full of trabeculæ,  
Reposits the blood, "ye see,  
This anthropological drain.



“Hepar sinistrum”—old Galen cries,  
 “Diverticulum sanguinis”—our Gray replies:  
     It’s a check on phlogosis,  
     And controls hematosiis,  
     (By the law of Osmosis)  
 Which Nature denies.

Quæ manu potissimum curat—Amen !!  
 Was suggested by “Celsus,” adopted by “Senn;”  
     “Davaine” found microbes enjoying the spleen.  
     By “Laveran” the malarial bacillus is seen;  
 If we treat by “resection” the organ—what then ? ?

But “Malaria,” like some venomous snake,  
 Vents her spleen on this function by “shiver and shake”  
     Malpighian cells, in my humble opinion,  
     Can’t absorb the miasma that’s in her dominion;  
 Unless—“Rex Quininus” takes “Old Ague Cake.”

And so, by exclusion we’ll end all confusion,  
 This gland surely aids the digestion.

    If a duct could be seen, in “some good little spleen,”  
 How soon this would settle the question !

    Tinnitus poeticus, et præterea nihil.

H. H. BICKFORD.

Memphis July 4, 1887.

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JOURNALISTIC COURTESIES.—In answer to a communication from the editor of *Provincial Medical Journal* with regard to the usage of editors in this country, the editor of the *New York Medical Journal* says: “We can speak for New York only, where we believe the invariable practice and sentiment of medical editors are in strict accord with what is stated in the following paragraph, which we take from the *British Medical Journal* for May 21, 1887: “We wish it distinctly understood that, when a manuscript is forwarded to the *British Medical Journal*, it is implied that a similar manuscript has not been sent elsewhere, unless special notice of the fact be given; we shall regard any infringement of this rule as a breach of faith.”

This seems to us to be the only position that can with consistency be taken by editors with their contributors.

## NOTES AND ITEMS.

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**TREATMENT OF DIABETES MELLITUS.**—Prof. Austin Flint, having tried in three cases of diabetes mellitus the treatment by lithium carbonate and sodium arseniate dissolved in carbonic acid water, is not favorably impressed with its value, and sums up the results of his observations with this and other modes of treatment as follows:

The ten cases reported are all that are now under my immediate observation. At the risk of being tedious, I have given certain details regarding these cases, although my records have been considerably abridged in this article. These cases seem to me to be quite instructive. Taken in connection with my other recorded cases, they lead me to the following conclusions:

1. In the three severe cases in which I have used the solution of lithium carbonate and sodium arseniate in carbonic acid water, no very marked effects have been observed in the few weeks during which the remedy has been employed; but the treatment seems to me to be worthy of more extended trial, and it may be useful in mitigating the severity of a strict antidiabetic diet.

2. The so-called specifics for diabetes have little if any effect. An exception, however, may be made in favor of the arsenite of bromine, which has sometimes seemed to me to control, to a slight extent, the thirst, polyuria and discharge of sugar.

3. The main reliance in treatment is to be placed upon antidiabetic diet. This has fallen somewhat into disrepute because it is seldom efficiently carried out. In no single instance, out of ninety-nine recorded cases, have I found that the antidiabetic diet had been enforced.

4. Milk should be absolutely interdicted. Its influence over the progress of the disease is prompt, powerful and most injurious.

5. There are certain cases in which dietetic treatment promptly arrests the disease and keeps it under control. There are other cases in which treatment seems to be of little avail, except in possi-

bly retarding the progress toward a fatal result. Of the ten cases reported, and now under observation, seven are amenable to treatment and three are obstinate.

6. A confirmed diabetic may be cured, in the sense that all symptoms will disappear; but the disease is liable to return at any time under an unrestricted diet. Still, moderate care in diet will often secure immunity.

7. A patient who has once had diabetes should have his urine examined every few weeks. The glycosuria always precedes the general symptoms of the disease, and these general symptoms can generally be forestalled by proper treatment employed as soon as sugar makes its appearance in the urine.

8. As the disease returns, either from imprudences in diet or from other causes, the successive recurrences present greater and greater difficulties in the way of treatment.

CLINICAL INSTRUCTION IN AMERICA.—Mr. Lawson Tait says, "In my early days the medical education of a British youth was not considered complete unless he had made the tour of the schools of France and Germany. I wish now the time and money I spent in those schools had been directed to the western instead of the eastern continent, and I venture to predict that ere long it will be to the medical schools of America rather than to those of Europe that our students will travel."

DISTILLERY MILK REPORT.—The June number of *Science* gives the first part of a report as to the effect of distillery swill upon the quality of the milk of cows fed upon it. Among the answers received the following is one of the most striking:

Dr. J. L. Hamilton, writes: I have practised medicine in Peoria, Ill., for over thirty years,—a place where more still-slops are manufactured than in any other place in the world, I suppose. For many years most of our dairies fed entirely on still-slop. The effect on children given only this kind of milk was very noticeable; and when they got sick (as almost all of them did during the summer months) they nearly all died unless the food was changed. As health officer, a few years ago, at a time when our city was mostly supplied with swill milk, I visited most of the dairies, and learned the following facts: the calves of cows fed only on swill-feed would live only a short time if allowed only the mother's milk;



that a cow brought to the dairy while with calf invariably lost it, fed on the slop alone; that cows kept in the dairy and fed only slop would become diseased by the second year, with a skin disease (large scabs would appear all over them). Some of the cows I examined, and found in this condition, and the dairymen said these cows would soon die if kept in more than two years.

**ANESTHESIA IN HEART-DISEASE.**—As the result of an imperfect report of testimony given by Dr. H. F. Formad at a coroner's inquest, a special committee was appointed at his request and reported, at a special meeting of the Philadelphia County Medical Society, the following resolutions, which were unanimously adopted:

*Resolved*, That, in the opinion of the Philadelphia County Medical Society, the testimony of the Coroner's physician, Dr. H. F. Formad, "that ether should not be administered to patients with heart disease, without due precaution and proper care both during the administration of the drug and after its withdrawal" is correct and proper; and the same caution should be observed in any other case. And

**WHEREAS**, a false impression may have been given to the public by the imperfect reports of Dr. Formad's testimony published in the daily papers, and the medical profession placed in a false and dangerous position, therefore be it further

*Resolved*, That, in the opinion of this Society, the administration of ether is not only necessary and proper when pain is to be inflicted upon patients with cardiac lesions, but lessens the dangers incident to operation; provided that due care be taken during the administration of the anesthetic, and proper regard be paid to its after effects.—*Med. News*, June 25, '87.

**THE ALUMNI ASSOCIATION PRIZE.**—The Alumni Association of the College of Physicians and Surgeons of New York City, has offered a prize of five hundred dollars, open for competition to the Alumni of the college, for the best medical essay upon any subject which the author may select. If no one of the essays is deemed sufficiently meritorious, the prize will not be awarded.

In order to be held worthy of the prize the essays must contain the results of original research, or investigation made by the author.

Essays must be submitted to the committee on or before April, 1, 1888.

SACCHARIN introduced into the animal organism passes without change into the urine exclusively. The changes which the composition of urine shows in its normal state may likewise be observed when saccharin has been taken. Saccharin is neither absorbed by the saliva nor the milk. Saccharin taken several days in succession and in large quantities, has no influence whatever on the transformation of food in the stomach. If it be introduced into the stomach or into the system by subcutaneous injection, it is absorbed very quickly, and is found in less than half an hour in the urine. Saccharin is perfectly innocuous to human beings as well as to animals.

It may be given as food to those who suffer from diabetes, as a means of rendering palatable food or nauseous medicines, since sugar is inadmissible.—*Western Druggist* April, 1887.

A GOOD DISINFECTANT is made by dissolving half a dram of nitrate of lead in a pint of boiling water, then dissolve two drams of common salt in eight or ten quarts of water. When both are thoroughly dissolved, pour the two mixtures together, and when the sediment has settled you have a pail of clear fluid, which is the saturated solution of the chloride of lead. A cloth saturated with the liquid and hung up in a room will at once sweeten a fetid atmosphere. Poured down a sink, water closet, or drain, or on any decaying or offensive object, it will produce the same result. The nitrate of lead is very cheap, and a pound of it would make several barrels of the disinfectant.—*Scientific American*.

THE WONDERFUL DELICACY OF THE SENSE OF SMELL.—A curious series of experiments has just been completed by Drs. Emil Fisher and Penzoldt (*Liebig's Annalen*, B. 239, i., 131) upon the sensitiveness of the sense of smell. These chemists used mercaptan and chlorphenol as their odoriferous substances, and experimented in a room of 230 cubic metres capacity. A gramme of the substance was dissolved in a litre of alcohol; 5 c. c. of the solution were again diluted to a known volume, and 1-3 c. c. of the latter solution measured out into a flask from which a fine jet could be directed by the experimenter to all parts of the room, the air of which was subsequently agitated by the waving of a flag. At a given signal a second experimenter stepped into the room, and took his olfactory observation, which was checked by the indepen-

dent observation of a third person. The astonishing result was arrived at that our olfactory nerves are capable of detecting the 1-4,600,000 part of a milligramme of chlorphenol and the 1-460,000,000 part of a milligramme of mercaptan. The quantity of mercaptan present in the air of the room was 250 times less than the amount of sodium present in the air of the room in which Bunsen and Kirchoff made their experiments upon the sensitive-ness of the spectroscope, when the sodium lines were just perceptible.—*Scientific American*, June 25.

POND MUD AS A DIARRHEA BREEDER.—A fact is related in the report of the State Board of Health of Connecticut, that illustrates the effect upon health of exposing the bottom of a pond. A small village in the town of Union was situated close upon the borders of a pond that was drawn down entirely during the summer and fall, for several years in succession, in order to get the water from another pond lying above it and communicating with it. When the pond was first drawn down, while the decaying materials at its bottom, which probably extend over twenty or thirty acres at least, were drying, offensive odors were complained of, and it was stated that they caused nausea and vomiting; and diarrheal and dysenteric troubles were stated to be unusually frequent. But no cases of malaria were reported as having originated in any part of the town.—*Jour. of Reconstructives*.

CESAREAN SECTION ON A COW.—C. Hamilton, of Ringold, reports a successful Cesarean section made on a cow with a deformed pelvis, the result of a railroad accident. He made the incision a little to the right of the median line, commencing just at the edge of the mammary gland and cutting up, making an incision six or seven inches long—the cut in the uterus as small as would possibly admit the escape of the calf. The membranes had not ruptured and he waited a few minutes for the bag of water to form so as to dilate the cut in the womb. He then ruptured the membranes and delivered the calf, and in a few minutes it was walking around. He closed the wound of the uterus with a cat-gut suture, as also that in the abdominal walls, and in a few minutes after the cuts were closed the cow got up and let the calf suck. There was little swelling or suppuration. The lochial discharge commenced at once from the vagina and continued its usual time. She gave sufficient milk for the calf all the time and made a good recovery.—*South. Pract.* July, 1887.



# ST. LOUIS COURIER OF MEDICINE.

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## ORIGINAL ARTICLES.

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### EPILEPSY.

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BY H. W. HERMANN, M. D.

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[*Read before the St. Louis Medico-Chirurgical Society, Feb. 8., 1887.*]

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THE reason why I chose this unsatisfactory and troublesome disease for discussion to-night was that a considerable number of cases of this kind have lately come under my observation, some of the most interesting of which I wish to report, reserving a tabulated report of all the cases for some future time. As epilepsy is not a disease with any constant or characteristic pathological change, but is diagnosed by symptoms, it is well to come to some understanding as to what symptoms constitute epilepsy. The term has lately become so comprehensive that it becomes more and more difficult to draw the line. Trousseau has called severe recurring facial neuralgias epileptoid. Brown-Sequard has introduced the term spinal epilepsy in cases of increased reflexes due in part to the loss of the inhibitory action of the brain. The forms of psychical epilepsy, or epileptic insanity, are already far enough removed from the classical clinical picture of epilepsy. From ancient times the convulsion has been considered the chief feature. It is well, I think, to con-

sider as the proof of epilepsy, the convulsion, unconsciousness and chronicity.

In regard to the etiology, more than a hundred causes, both immediate and remote, have been mentioned by different authors. The principal ones are heredity, cerebral deformities, disease or injury of brain, overwork or fright, trouble, etc., heat, reflex irritation, intoxication of various kinds.

Generally the attack is preceded by warnings or auræ, by which the patient or those around him may know that an attack is threatening. The auræ may be motor, sensory, vaso-motor or psychical.

Occasionally changes in the organs of secretion have been observed as auræ. The major attack sometimes sets in without an aura, the patient suddenly loses consciousness, falls, becomes rigid with a tonic spasm which marks the first stage of the attack, and rarely lasts more than a minute. Then clonic spasms mark the second stage, lasting generally less than three minutes. The third stage is marked by stupor lasting about ten minutes, and finally, a fourth stage of recurring sensibility and intelligence, lasting generally less than one-half hour.

In different cases this usual or typical attack is varied and modified in countless ways, though in the same case the similarity between the successive attacks is very great, so as to compel Charcot to speak of a photographic similarity. This is complicated in some patients, they suffering from two or more forms of epileptic spasm, these different forms again resembling each other very much.

Death rarely occurs in the attack, and is generally the result of accident, such as falling, strangulation or drowning. In cases of continuous convulsions it may occur through exhaustion with high temperature.

The morbid anatomy of epilepsy has been the subject of much thought and experimentation in the latter half of the present century, but in a functional disease like this we cannot expect to find very marked pathological changes. These researches have, however, much advanced our ideas of the nature and seat of this affection.

Changes in the circulation have at an early date been sus-

pected as the cause, and a number of instructive experiments of Kussmaul and Tesmer have demonstrated the fact that anemia of the brain may cause epileptic convulsions. Brown-Sequard, who has made experimental studies on epilepsy for 30 years, has shown that it may be produced by extirpating and irritating various parts of the body in animals, and that this epilepsy may be hereditary. He discovered so-called epileptic zones, the irritation of which would precipitate the attack. Westphal has shown that by tapping the head of a guinea-pig we may produce hereditary epilepsy in these animals. Hughlings Jackson believes that any part of the gray matter may, through over-excitability, give rise to convulsive attacks, and this view is not incompatible with that of Nothnagel who locates the seat of epilepsy in the convulsive centre discovered by him in the pons and medulla oblongata. Schroeder von der Kolk has on several occasions found hyperemia in the region of the centres for the pneumogastric and hypoglossal nerve.

Epilepsy seems to depend on a disturbed function of the nervous centres in which the normal relation between the nervous reaction to irritations is disturbed, so that a stormy explosion follows a period of accumulation of nervous force.

Since the introduction of the bromides the prognosis of epilepsy has been improved, though the great hopes of many have not been realized. A spontaneous cure of epilepsy is rare. When a cause can be discovered and removed, cases are often cured, but in others the epileptic habit has already become permanent.

As the etiology of epilepsy is so various, it stands to reason that no routine treatment will meet all cases. Each case must be investigated and treated by itself. It is generally advantageous to give the medicine in reference to the expected attacks. The galvanic current which has been suggested, I have tried, with unfavorable effect. It seems to increase the extent and frequency of the paroxysms.

Various methods have been employed to abort an impending attack, and some with success.

Before closing my paper I beg leave to record a few cases of various kinds.



CASE I.—E. W., boy, 12 years; normal development; mother epileptic; a brother died in convulsion when he was six weeks old. When patient was nine months old, recovering from measles, had a severe convulsion. After an interval of three years had first attack of momentary unconsciousness, without falling or convulsions, which attack was repeated at intervals of a few days to a week. Two years ago had first attack of convulsions, which, with attacks of petit mal, have occurred ever since—sometimes has three or four of each every day. Intelligence little impaired. Father thinks the boy as smart as any. His attacks are always preceded by a cramp in his stomach, which induces him to seek protection. Sometimes the aura will come on without an attack following.

CASE II.—Petit mal.—Stella W., 7 yrs., of healthy family. Three years ago had a severe fall which left her unconscious for 20 minutes. A year ago began to have spells of momentary unconsciousness. She would stop in the midst of her talk or occupation and stare vacantly for a few seconds. Never had a convulsion; attacks of petit mal five or six daily; is quite intelligent.

CASE III.—With post epileptic running.—Mary F., 23, mixed attacks; impaired intelligence. Would invariably after attacks try to run around in a purposeless way.

CASE IV.—Man, 30, farmer. Was seen after the attack to get up and run across the field, climb fences, and come back, remembering nothing about his attack or actions.

CASE V.—With mental disturbance.—Mary R., æt. 26, has been suffering from epileptic convulsions for five years, interspersed with attacks of petit mal. Is very nervous and easily annoyed, and particularly irritable and quarrelsome before the attacks. After recovering from the stupor talks and acts queer, and tries to walk out. Remains in this condition often one half hour, and when she recovers consciousness remembers nothing about her actions or attack. Bromide of potash reduced fortnightly attacks to once a month, the addition of tr. digitalis m. v. three times daily to once in three months, when she neglected to continue it, thinking she was cured. Petit mal came rarely, but persisted during intervals between large attacks.

## ANIMALS AS CARRIERS OF DISEASE GERMS.

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BY S. E. EARP, M. D., INDIANAPOLIS, IND., *Prof., Mat. Med., Therap.,  
Med. Chem. Ind. College of Physicians and Surgeons.*

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IN instances where epidemics of scarlatina and kindred diseases are unusually severe in their ravages, the various boards of health take every precaution to prevent the spread of disease, especially in not permitting members of the family who have been in contact with the patient to mingle with people in the thoroughfares. Yet there can be no doubt that the various pets of children are not infrequently a means by which the disease germs are carried from one house to another. In some instances where pet rabbits, kittens and lap-dogs have been constantly fondled by the little patients, I think I have traced the source of contagion. In this manner, almost unawares, the epidemic may spread rapidly. Furthermore, it is apparently quite possible that the animal itself may be susceptible to the disease. In a clipping in the ST. LOUIS COURIER OF MEDICINE of July, 1887, taken from the *British Medical Journal* of May 7, 1887, O. Bourn reports a case of whooping cough in a cat, as related by the mother of a child also affected at that time. Also that this is the first instance where the disease was transmitted from man to animal.

In 1864 my father and one other member of our family were attacked with this disease, and during the time a large house cat was frequently asphyxiated by attacks of coughing; at times when long continued there was a peculiar noise which it was thought, very much resembled what my father called a "whoop."

In October, 1886, I was treating a family by the name of Hare in this city, where there existed three cases of diphtheria in small children. The baby, a child eighteen months old, kept almost constantly at its side a pet poll-parrot; in fact, oftentimes the parrot would take sweetmeats from the mouth of the baby. At a later date the feathers of the parrot began to drop; it seemed to lose its activity, it coughed frequently, its mouth was filled with a glairy mucus. During health it was a superb lin-

guist, its voice now became hoarse and eventually lost. Upon examination the throat presented a well developed membrane. A few days ended the life of the bird. The children had been using the spray of corrosive sublimate, and this was adopted with the bird but proved a failure.

With these instances mentioned, which seem very much as if infectious diseases would in some instances attack the lower animals, too much care cannot be given to this method of spreading the contagion. While at first thought these may be trivial matters, yet reflection will undoubtedly demonstrate the necessity of proper precaution under all similar circumstances.

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## LACERATION OF THE CERVIX AS A CAUSE OF ABORTION AT THE FIFTH MONTH.

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BY DR. CHEVER BEVILL, WINFIELD, ARK.

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I HAVE been very much interested for several months in the above subject, but I find very little to read with regard to it. I have no doubt that physicians have often noticed some women repeatedly abort about the fifth month, and that without any to them apparent cause. With this simple observation of fact the subject has been overlooked or passed by.

Prof. T. G. Thomas, in his "Diseases of Women," fifth edition, in summing up the consequences of laceration of the cervix, mentions a tendency to abortion, and if there is in his work any other reference to the subject, I have overlooked it.

Dr. T. A. Emmet, in the last edition of his "Principles and Practice of Gynecology," does not so much as mention it. He is certainly the best we have in America as an authority on laceration. He was the first to write any thing on the subject.

Hewitt, in his late work, "Diseases of Women," says nothing about it.

I have searched quite a number of journals, and I find nothing of note on the subject.

The anatomy of the uterus, when examined closely, will give us some idea why it is that a lacerated cervix may produce abor-



tion, or, in other words, be a prime factor in causing it to occur, the circular fibres that give strength to the cervix being broken, as this undergoes the changes incident to pregnancy—especially as the uterus has at this time (fifth month) risen out of the pelvic cavity, and, as the French writer, Desormeaux and others, contend, the neck now begins to diminish. However, this is disputed by other authors. (Vide Cazeaux's *Midwifery*, sixth American edition, page 132.)

Let this be as it may, at the time above specified there is more weight upon the weakened cervical canal than has been before; and while the weight increases there is a loss of power, and as the outer os is powerless, and the inner must bear all the weight, it consequently gradually gives way, a watery discharge begins, and a few light pains occur, preliminary to an abortion.

I have closely studied five cases that have come under my care within the last eighteen months. In one case the lady aborted twice at the fifth month within twelve months. The first symptom of trouble was losing a quantity of water from the uterus. I used every method to prevent abortion, but all of no avail, so far as arresting the process. In this lady the inner os was opened enough to admit the index finger through the inner os. The cervix was lacerated deep, right and left, and so she miscarried twice in the same manner.

Of the other cases three had short cervixes with bilateral laceration.

The other patients had unilateral laceration; all were threatened with abortion, but by keeping them in bed for a time and then having them wear an abdominal supporter, they all went through to the seventh month, and the children were born.

There is, of course, a cure for this trouble in Emmet's operation. But away back in the country, as we are here, one cannot get a physician to assist in the repairing of the cervix. They ask "How did women do before Emmet's time?" I tell all such patients they will have to be operated on before they can go to full term.

I hope to see something of more importance on this subject from some one that is able to do the subject justice.

DOCTOR WILLIAM BEAUMONT, WITH LESSONS  
FROM HIS LIFE.

BY PROFESSOR A. J. STEELE, M. D.

[An address delivered at the First Annual Commencement of the Beaumont Hospital Medical College, St. Louis, March 1, 1887.]

[CONCLUDED.]

GENTLEMEN GRADUATES: Consider first that, Beaumont improved his opportunity. 'Tis true the remarkable case of St. Martin came in his way, but he utilized it. Never fear, you will all have opportunities, improve them. It may be a rare case in practice, an observation on a new remedy, an anatomical or pathological fact discovered; record at once and give to others. While circumstances do not make the man, yet I own they are more propitious to some than to others. Yet they come sufficiently to all, that if properly advantaged will bring happy results. However, the same circumstance will affect one person differently from another, depending upon the individual. The seed may be the same but the fruit will depend upon the soil, which is the man himself, varying as modified by natural gifts, early training and educational advantages. But, as in the physical world, cultivation will greatly improve the soil, so in your make-up, cultivation—mental, moral and social, will so improve, that when the circumstance, the opportunity, comes it will take root and bear abundant fruit. To the untutored savage the zinc and carbon and acid, are only so many specimens of inert matter, but to your intelligence they signify a combination for the generation of an agent, electricity, the most wonderful, powerful and useful that God has given man. There is a difference in the soil in the two cases.

Young gentlemen, not only improve your opportunity, but do so at the time it offers; procrastinating, it may be too late. Some years since I with a friend had occasion to ascend the Elizabeth river a number of miles, in a small boat, the only means of conveyance at hand at the time. The tide was flood,

flowing in from the sea, propitious for an easy row. But meeting in the town with pleasant companions, the moments, and hours slipped unwittingly by. At last under the guidance of a full moon, with the prow of our little skiff pointing upwards, we pushed into the stream with light hearts and strong nerves. Speeding well for a time we soon began to realize that the current had changed and was setting against us, ebbing, slow at first but stronger and stronger. Our progress was so tedious and the work so hard and our arms so weary that gladly would we have pulled to the shore and waited for daylight or a change of the tide, had we dared. We had lingered too long, we had allowed our opportunity to slip by. Long after midnight found the destination reached by two worn but wiser youths.

Again, do not make of your profession a mere trade. Beaumont says in his preface, "I have availed myself of the opportunity afforded \* \* \* with a zeal and perseverance proceeding from motives which my conscience approves." As to these motives he says further: "I am willing to risk the censure or neglect of critics, if I may be permitted to cast my mite into the treasury of knowledge and to be the means, either directly or indirectly, of subserving the cause of truth, and ameliorating the condition of suffering humanity." What more noble! Nothing said about putting money in his purse.

'Tis true, by your diplomas you are licensed to do business, but they mean more than the privilege of making money. My colleagues, by the authority of the State of Missouri, have this night made you missionaries. Henceforth your purpose must be *to give*, to give health, life, surcease from suffering, comfort to mind and body, and to give it all freely. The merchant parts not with his wares until his price is paid or secured, but the world will ask you to *do* without expressing any purpose of reward. For the past five months we have labored to instruct you how to serve others, not a word as to the secret of money making. Your first and absorbing care will be the welfare of others, not your own comfort or interests. The doctor must be unselfish, certainly in motives. But, as you seek the good of others and obtain it, assuredly personal emoluments will come. So master your profession that you can successfully practise it, and what



results? High rank among your brethren, honor in the community, and rewards. Never fear, your living will be assured, if you are diligent in your profession and faithful to your patients. Certainly there is a business side to your profession, and I would urge you to cultivate business habits. It is an obvious duty. But don't make the getting of gain the chief object of your lives; for if so, pitiable creatures will you become and unworthy of your calling.

As citizens be true-hearted, upright and honorable. In habits temperate, sober, abstemious.—Beaumont indulged in neither tobacco nor intoxicants. To your patients be sympathetic, kind, gentle, no good comes from being rough.

Again, continue your studies. Beaumont was a hard student to the last. At the first much time will be yours, not to hang about the corner drug-shop, but to cultivate your best friends, books.

Read up your cases, be they ever so simple; you study then to a purpose. Experience and common sense alone are not sufficient, there must primarily be knowledge, which only comes from study. "*Medicus nascitur, non fit*," that "the doctor is born, not made," is only partially true.

The world knows but little of the extent and depth of our science, certainly is unfamiliar with the wonderful mechanism of the human frame, and still more so with the varieties, complications and sympathies of diseases, and yet some would so simplify the whole matter that armed with an index of diseases or symptoms and a case of little vials they believe our art may be conscientiously practised. But not so, it is complex and intricate. To master it surround yourselves with books, a few general treatises and more monographs, not for ornament but use. Learn their contents, then the case demanding it you know where help is to be found. Our science is so progressive that to keep abreast of it medical journals too must find frequent place in your reading.

A creditable feature of Beaumont's work was that he did not allow any previously conceived opinion to bias the conclusions deduced from his carefully made experiments, so may we not labor to prove theories, but rather to draw conclusions from well

observed facts. Young gentlemen, avoid speculation in your medical studies and practice. One carefully observed and accurately recorded fact is worth a dozen elaborately spun theories.

Record your cases; Beaumont's record of the case of St. Martin would be a good model, it is so to the point. In telling what we have seen and experienced we obtain a clearer idea of the facts. Keep your record of cases in permanant form.

When settled, join the local medical society of your town or county. Beaumont was honored with the presidency of the medical society of this city. Local medical organizations tend to regulate professional intercourse, prevent disputes and settle them amicably when they unfortunately occur, and generally promote harmony and good feeling. The best interests of yourself and the profession demand this course.

Beaumont was not a believer in exclusive medical dogmas. If you care to recognize as citizens the advocates of such, you need not hold professional intercourse with them, for when different principles of belief are entertained, the patients cannot be advantaged by consultation. Frown down quackery of all kinds. Enlighten the masses in the principles of physiology. Charlatanry flies before a knowledge of scientific truths. Once the weapon inflicting the wound was dressed with the same ointment that was applied to the sore; and the rusty nail that pierced the foot was greased and hung up in the chimney to ward off lock-jaw: such foolish notions have now given way, but unfortunate credulity exists in other directions. Advertisements in the public press, and quack circulars sent through the mail flaunt lies that cause an expenditure of millions of money annually<sup>1</sup> with a sacrifice of thousands of lives, and no redress.

Don't abuse other so-called schools of medicine: silence here is golden. People would say you were jealous.

Object to be styled allopathic; your teachers have not instructed you in the principles of "Allopathy." We recognize no such tenet. Our platform has been the broad field of "gen-

<sup>1</sup>In 1885 there was expended in this country alone for proprietary medicine the sum of \$22,000,000, the list embracing five thousand different articles.

eral medicine" founded on the facts of anatomy, physiology, chemistry, and pathology, and medical and surgical therapeutics based on reason and practice; all these together constituting "regular medicine". Utter no unkind remarks about brother practitioners: divulge no family secrets: be no gossip.

Beaumont was a believer in the supreme ruler of the universe. May you ever trust the same power. Stand firm on the moral questions of the day, throwing your influence on the side of right. And happy will be your reflections if you have brought peace to a single soul while healing the body. All down the ages bright lights of our profession have been men of strong religious character. Dr. Mason Good was one of these, eminent for his piety as well as celebrated for his medical writings. Amid the busy scenes of a London practice he composed in praise of his maker these beautiful lines.

"Not worlds on worlds in phalanx deep,  
Need we to prove a God is here:  
The daisy fresh from winter's sleep,  
Tells of his hands in lines as clear.  
For who but he that arched the skies,  
And pours the day-spring's living flood,  
Wondrous alike in all he tries,  
Could form the daisy's purple bud,  
Mould its green cup, its wiry stem,  
Its crimson fringe so nicely spin,  
And drench in dew the topaz gem  
That, set in silver gleams within?  
And fling it unrestrained and free,  
O'er hill and dale, and desert sod,  
That man, where'er he walks, may see  
In every step the stamp of God?"

While I have drawn so largely from the life of Beaumont as an example for your guidance, yet I am no hero-worshipper, for no one man can be our example in all things. The circumstances, the surroundings, the natural attributes and the education of no two individuals can be exactly alike, thus one may not hope to follow in the exact footsteps of another. Certain ones in history may have had qualities that are to be admired and imitated; a perseverance here, an eruditeness there, a suavity in



one, a strength of character in another—in the aggregate making up a well rounded whole, our ideal man, rarely however found in one individual, but well represented in the character we have been considering, Beaumont's, and in which we find so many lessons to heed.

Young gentlemen: God speed you in the untried future yet before you. It is little to say that we the Faculty will be greatly interested in you—our first fruits. It will have been something to you to have graduated in our first class. May your honorable futures be such as that your successors may desire to follow, be then bright examples to them.

Soon you separate—Your hearts are even now swelling with the anticipated pleasure of returning to your scattered homes where family groups are waiting to embrace and congratulate you, and possibly one, not yet of that family circle but whom you hope to make such, a hope to be realized if to its attainment the same zeal is given as has been shown in the acquirement of your degree. Farewell, and as father Hippocrates has it, *Ars longa, vita brevis est*, so be doing, for Art is long and life is short.

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MILK CASEIN AS AN EMULSIFIER.—M. Léger suggests the casein of milk as an efficient emulsifying agent. To prepare it his process is as follows: Shake together four litres (about four quarts) of milk and sixty grammes (about two ounces) of ammonia-water, and let the mixture stand for twenty-four hours, when it will be found to have separated into two layers, the upper one containing the oily matters, and the lower one consisting of whey. The liquid is now decanted, and congulation is effected with acetic acid. The magma is compressed and ten grammes (about one hundred and fifty grains) of sodium bicarbonate are added. The casein dissolves and, if a certain quantity of sugar is added, the saccharate of casein can be isolated in the form of a powder which will contain 10 per cent of soluble casein. This keeps well and has a slight odor like pastry.

To make an emulsion with oils a mortar must be used as according to the usual method, the gums ordinarily used being substituted by this saccharate of casein.—*N. Y. Med. Jour.*, June, 25.

# CASES FROM PRACTICE.

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## NOTES OF DISPENSARY CASES.<sup>1</sup>

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BY F. T. OUTLEY, M. D., ST. LOUIS

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### CASE I.—ABSCESS AND GANGRENE OF HAND.

B. F. (col.), age 44, came to the dispensary Feb. 12, with abscess of left hand and gangrene of thumb. About five weeks before he had run a splinter into his thumb, under the nail; his wife succeeded in removing a portion of the wood, and a surgeon who saw it later also removed a small portion. When he presented himself here the hand was very much swollen, and the gangrene involved the first joint of the thumb. Deep incisions were made into the hand on dorsal and palmar surfaces, releasing large quantities of pus, and he was advised to poultice the hand. In the course of several days, he coming every other day, the line of demarcation appeared, and he refusing to go to the hospital, being a married man with large family, we amputated, removing the head of second phalanx, leaving lateral flaps. The wound healed by granulation and he made a good recovery.

### CASE II.—GANGRENE OF FINGER.

E. J., age 28. Laborer, came to dispensary May 10. While under the influence of liquor, attempted to up-end a barrel of oil. The fingers of his left hand were caught between the chine and a large rock, lacerating and fracturing the second phalanges of first and second fingers. Dressed antiseptically and sent home. He continued to drink, and gangrene of first finger ensued. Amputation followed, rounding off the bone of second phalanx. He was given iron and quinia in small doses and made a good recovery.

1. We are indebted to Dr. F. T. Outley, assistant city dispensary physician, for the account of the following cases, and to the gentlemen of the City Hospital staff for the continued history after the patients were admitted to the hospital.

## CASE III.—LACERATED AND CONTUSED WOUND OF THE HAND.

J. H., age 16, St. Louis, paper hanger, came to the dispensary on Tuesday, March 29, having received a lacerated and contused wound of all the fingers of the right hand.

The patient received his injuries by an accident with a putty machine. The wounds made were the result of crushing, and in detail were as follows:

Third phalanx of little finger with all of its coverings was completely removed. The end of the index finger and about one-third of the middle and ring fingers were simply hanging, attached by some tendons or fascia. Wound of index finger is at second phalangeal joint, that of the two middle fingers just beyond first phalangeal articulation. Bones are broken in each instance. Distal ends of injured fingers are of waxy paleness, cold and without sensation. There was but little bleeding. Rounded off exposed end of phalanx of little finger, sewed on the severed ends of the other injured fingers by means of deep continuous silk suture. The attempt at securing union was made almost without hope of success, yet there was nothing to lose by the attempt; even in point of time. This course was adopted by Dr. Shattinger after consultation with Dr. Lewis. Hand and fingers had previously been cleansed and were again thoroughly washed with antiseptic solutions. Dressed with iodoform, antiseptic gauze, plenty of cotton and antiseptic crinoline bandages. Enveloped all in rubber tissue to retain warmth and placed hand and fingers on anterior splint.

April 1, Dr. McCune removed the dressing and found the fourth finger appearing gangrenous, the third and second looked as if they might be saved. A fresh antiseptic dressing was applied. The patient went out on that day with his father.

The highest temperature reached was 38° C. (100.4° F.) on the evening of the day following the accident.

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THE AMERICAN OTOLOGICAL SOCIETY held its twentieth annual meeting at the Pequot House, New London, Conn., July 19, 1887. The following are the officers for the current year: President, Dr. J. S. Prout, Brooklyn, Vice-president, Dr. Geo. C. Harlan, Philadelphia; Secretary and Treasurer, J. J. B. Vermyne, New Bedford, Mass. The next meeting will be held at the same place on the third Tuesday of July, 1888.



## EDITORIAL.

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### HYGIENE OF THE POLICE FORCE.

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In a paper read before the section in State Medicine at the meeting of the A. M. A. at Chicago, Dr. Geo. Homan, of St. Louis, presented the result, of some careful observations which he has made during two years in which he has served as Medical Examiner to the Police Department of this city.

In the examination of nearly five hundred patrolmen he found the average mean girth of the chest at the level of one inch above the nipples was a trifle more than thirty-eight inches, the extremes being the measurements on forced expiration and inspiration. Measurements were made with a steel line upon the bare skin. The average expansibility of the chest was 2.759 inches. The average stature was 5 ft. 8.22 in., weight 167.36 pounds, average waist girth 34.131 in.

Examination of mortality and morbidity records showed that pulmonary affections hold a leading place among the causes of police disability.

In the endeavor to determine the relation between the mode of life and work of the police patrolmen and this noticeable tendency to pulmonary disease, with its accompanying necessary impairment of efficiency, he remarks first;

The daily routine duty required of a patrolman in this city is twelve hours' service out of the twenty-four, extending from 11 A. M. or P. M. as the case may be, the change from day work to night work, and *vice versa* being made every three months. Aside from one hours' drill per week in the manual of arms during the winter months, no bodily or athletic exercise is required of a police-

man other than that involved in patrolling the district assigned to him, with the incidental exertions needed on his part to maintain law and order therein; the result being that there is usually plentiful foot and leg exercise to the neglect of other highly important parts of the body.

Comparing the measurements of the members of the force with those of 122 new recruits he found the latter to measure about one-quarter of an inch more in chest girth and the average chest expansion of the new recruits to be 3.395 in. to 2.759 inches given above as the average expansion of members of the force. This latter measurement is of far greater significance than the former, as Dr. Homan well remarks, because "a considerable gain in mean chest girth may be noted while the absolute breathing capacity of the chest cavity, and free play of its walls are diminished."

As the result of his observations Dr. Homan draws some conclusions regarding the importance of systematic gymnastic exercise for men engaged in such work as are the patrolmen of a city police force, which are equally worth consideration by those who have any responsibility in promoting the efficiency and reliability of a fire department or a salvage corps.

In order that the members of a fire department or a salvage corps may be at all times ready to respond to the demand for extraordinary and sometimes prolonged exertion, for which they may at any time be called upon, they should not only have opportunity but should be required to take regular, systematic exercise, not severe or overtaxing the muscles, but sufficient to secure and maintain thorough development and the most perfect nutrition,

We would commend to the consideration of our readers the following paragraphs from Dr. Homan's paper:

"Additions to the regular force are usually made from among men employed as laborers, mechanics, porters, teamsters, and like occupations in which the muscles of the arms and associated parts are brought into more or less constant vigorous exercise. Upon assignment to police duty the accustomed symmetrical use of all the

working muscles is lost, as compared with the previous occupation, walking being all that is required of the officer, and the hurtful effect of the change, after the lapse of a few months even, upon pulmonary expansibility and capacity is most marked. In repeated instances applicants for appointment coming from occupations requiring all-around exercise, and in whom the respiratory apparatus was found to be of superior excellence as regards both free expansibility and normal breathing sounds, after six months police service the normal expansion had decreased from one-half to one inch, or even more, and the comparative rigidity of the chest walls was accompanied by impaired or roughened vesicular murmur, with symptoms of circumscribed congestion, incipient catarrhs, and other signs of sluggish pulmonic circulation,—the girth of the chest being usually not sensibly changed.

This condition was so uniformly present in those cases in which the subject had resorted to no gymnastic exercise to maintain the initial good condition of the chest, as to at once attract my attention, and the good results that have followed the employment of means to increase the capacity of the chest, to develop and strengthen the auxiliary muscles of respiration, and to favor the free play, suppleness, and expansibility of the chest walls have been equally manifest. These results have appeared not only in a betterment of chest measure, but in the appearance and establishment of normal respiratory sounds, in increased freedom from coughs and colds, in improved general circulation, in appetite, digestion, nutrition and excretion—in a word there was a general exaltation of physical vigor and power that was consciously felt and enjoyed by the subject.

In instances where the applicant fell short of the standard through pulmonary defect remediable in character, the counsel given by me to overcome the difficulty has been followed for some months with the constant result of improvement in wind, and deepening of respiratory capacity. The means recommended to this end have been the systematic judicious use of hand weights,



sand bags, clubs, and other devices for symmetrical physical exercise and development found in gymnasiums.

From all the foregoing considerations my opinion is, that the omission from the department equipment of means for regular systematic chest and arm exercise, and the enforcement of their use as a necessary part of routine duty in any police force on a service-basis similar to the one in this city, indicates a point of vital weakness, and that such lack constitutes an unguarded avenue by which a host of physical evils assail the municipal defenders of life and property. A fair degree of speed with good wind endurance are recognized as being necessary physical qualifications of the perfect officer, and these requisites can only be secured by appropriate gymnastic drill designed to exercise and harmoniously develop and preserve the entire body.

It is my deliberate conviction, that, aside from the natural decline of chest elasticity which accompanies advancing years, there is a certain percentage of loss in this respect in the police force of this city that may be justly ascribed directly to general physical conditions incidental to the performance of duty under existing regulations; and I believe that this loss represents a definite and calculable proportion of the total impairment of service by sickness in the force. Furthermore, I believe that the cause of this waste and loss in vitality, time, and effective employment, bears a constant and definite relation to defects and errors of long standing in the physical regulation of the department—that this wastage is largely avoidable, and that the shrinkage or impairment of chest capacity, due to faulty physical conditions in the constitution of the department, means so much loss in time and so much loss in money which might be saved by a modification of discipline and the introduction of simple means for the attainment of the desired end. For if, by a practicable modification of existing regulations and adjustment of means to ends, an average increase in breathing capacity of say one half of an inch per man could be secured to the entire force, it is my judgment that the loss of time

from pulmonary troubles would be decreased at least one third, while the gain in general vigor, morale, and physical power would be not less than fifty per cent ; and, certainly, the money equivalent of this gain would represent many hundred dollars annually, not to speak of the decreased amount of physical suffering, the increased ability to perform duty, and the prolongation of years of effective service to the veterans of the force.

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### ILLINOIS STATE BOARD OF HEALTH.

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On another page we publish in full the new law regulating the practice of medicine in the State of Illinois. At the quarterly meeting of the Illinois State Board of Health, held in Chicago, July 8, 1887, the secretary of the board, in presenting his quarterly report, took occasion to give a summary of the work accomplished during the ten years just passed.

Inasmuch as the Illinois Board of Health has taken the lead in all the sanitary work and in the measures which have secured so marked advancement in medical education and medical legislation during these ten years, this record of Dr. Rauch's is by no means of mere local interest; and we give herewith some extracts therefrom which, we think, will be of interest to all our readers.

At the same time we would most heartily congratulate Dr. Rauch and the Illinois State Board of Health on having now secured a law which will enable them to do much more efficient and satisfactory work than was practicable under the old law.

Referring to the organization of the Board in 1877, Dr. Rauch says:

“Fortunately the Board, from the date of its organization, has been practically a unit in its work. Whatever individual differences of views or opinions existed from time to time on various subjects have always been reconciled before the Board formally committed itself to any plan of action, and the course finally

adopted upon any given question has uniformly been that of which there was not merely a majority but a substantial unanimity of judgment.

"The stable personnel of the Board has contributed much to the development of this harmony of action. A majority of the present members have been such for ten years—the entire period of the Board's existence. This lengthened terms of service and the experience thus gained have broadened the views without, it is believed, unduly developing a spirit of official conservatism.

"The original law took effect July 1, 1877, and \* \* \* there were in round numbers, on July 1, 1877, 7400 persons engaged in the practice of medicine in Illinois. Of these about 3800, or more than one-half, were non-graduates, and these comprised all classes, from those who had assumed the name of 'Doctor' without any medical study or education whatever—often without any other form of education—up to practitioners who had attended one or more courses of lectures, had had some practical anatomy instruction and hospital experience, but had been unable to complete a full term of study or had failed to graduate.

"The following table gives a comparative exhibit of the status of the profession at the beginning and at the end of these ten years.

	July 1, 1877.	July 1, 1887.
Total number engaged in practice.....	7400	6180
Graduates and Licentiates.....	3600	5704
Non-graduates.....	3800	476
Percentage of Graduates and Licentiates.....	48.6	92.3
Percentage of Non-Graduates.....	51.4	7.7

"When the law went into effect there were 1923 physicians in the state who were not qualified and therefore could not comply with its provisions. Of these by far the greater number left the state, others abandoned practice, while many qualified themselves and graduated or passed the examination of the Board." In addition to this number the Board refused during the ten years 3129



applications for certificates. Of this number 640 had diplomas from schools that sold them, or which graduated upon a mere nominal examination.

Of all classes of certificates there have been issued since the organization of the Board a total of.....9,295

To Graduates and Licentiates.....7,909

To Exemptions years of practice.....1,152

To Licentiates upon examination by the Board (candidates examined 869).....234

“In addition to those directly driven out of the state, or compelled to abandon their pretenses of practising medicine—because unable to comply with the law—there were in round numbers about one thousand more unqualified persons deterred from coming into the state, or from attempting to practise. This estimate is based upon the correspondence in the secretary’s office from those making preliminary applications or inquiries, and of whom nothing more was subsequently heard after they were made acquainted with the provisions of the Medical Practice Act.

“The passage of this act was the inauguration of a reform of the practice of medicine and medical education. The results of the work in this state have caused other states to enact similar laws, in some cases more stringent than that of Illinois. The work of the Board is recognized not alone in this country, but throughout the civilized world. It was the first time that different schools of medicine were placed upon the same Board—ostracizing none, but requiring from all certain fundamental knowledge—the only question asked being whether they could comply with the spirit and intent of the law. The result of this course has been to remove many prejudices; and if the same policy is pursued in the future, the day is not far distant when those engaged in the practice of medicine will simply be known by the title of physician.

“The pernicious and swindling practices of a number of ‘diploma mills’ which were in active existence at the date of the passage of the Medical Practice Act early attracted the attention of the Board, and it is entirely within bounds to say that mainly through its ef-

forts they were broken up. Others which were subsequently started had but a brief career, and the sale of diplomas in the United States has been substantially stopped."

"Since the organization of the Board, about 2000 complaints, involving the professional conduct of the licentiates of the Board, have been received. These were settled and the cause removed in nearly every case where there was ground for complaint, by a simple reminder that the Board considered such conduct a breach of professional propriety.

"During this period 41 certificates were revoked for unprofessional and dishonorable conduct. Four of these were conditional, and their enforcement was suspended on the promise of the parties to conduct themselves in the future in an honorable manner, professionally. Two of these were restored during the past year for the same reason.

"The principal causes of revocation were fraudulent advertising, promises to perform cures that were impossible, advertising under an alias, making affidavits that they were graduates of medical schools when they were not, assuming the names of parties to whom diplomas had been granted in good faith, personating deceased individuals who had possessed diplomas, and in other ways being guilty of conduct intended to impose upon and defraud the public.

The first move of the Board towards exercising any control over medical colleges that were apparently in good standing, was to pass a resolution to the effect that no diploma of any school that had two graduating courses in one year would be recognized after July 1, 1878.

The Board became satisfied from the professional history of the class of graduates turned out by these schools that the teaching and course of study were too limited. Schools that followed this course and are now in existence, do not, under the new rules, graduate one-half of their former number.

In 1876 an organization was formed, called the "American Medical College Association," the object of which was to elevate the

standard of medical education. The colleges at that time were mainly private enterprises, and without concert of action nothing could be accomplished. It was agreed that after the sessions of 1883-84, the time and course of study were to be lengthened; also that a preliminary educational requirement should be exacted of a student before being allowed to enter. This association held together for several years, and there was a prospect that the spirit and intent of its organization would be carried out; but as the time approached for putting into effect the reforms, signs of disintegration became manifest. The work of the Illinois State Board of Health fully confirmed the sentiment that prompted the organization of this association, and as that organization only included the so-called "Regular" schools, in June, 1880, a committee was appointed by the Board for the purpose of ascertaining the requirements, course of study, etc., that were necessary to a definition of the phrase "good standing," as used in the Act to Regulate the Practice of Medicine," and after a careful examination of the subject, the Board adopted a "Schedule of Minimum Requirements," to take effect after the sessions of 1883-84.

As the result of this schedule, which has been strictly adhered to, there are now 114 medical colleges which exact an educational requirement for admission, as against 45 before it went into effect. Attendance upon three or more lecture courses is now required by 41 colleges, as against 22, and *provision* is made for a three or more years graded course by 48 other schools. Hygiene and Medical Jurisprudence are now taught in 110 colleges, as against 42 and 61 respectively. The average duration of lecture terms has increased from 23.5 weeks to 24.8 weeks. Nine more colleges have lecture terms of five months, and 13 have terms of six months or over, as compared with the sessions of 1882-83.

"The effect upon matriculates and graduates for the session of 1884-85, showed a decrease of the former of 6.1 per cent, and of the latter a decrease of 6.8 per cent from the sessions of the previous year.



"These changes were mainly owing to the educational requirements of the Board demanded of a student before being admitted to a medical college, and to the stricter examination exacted by the colleges in endeavoring to comply with the Board's Schedule of Minimum Requirements. The gist of the requirements of the Board embraced a demand that a student should have a good English education before being allowed to enter a medical college, and that he should have completed a reasonably full course of study, attendance upon lectures, clinics and hospital, before being graduated and authorized to enter upon the practice of medicine.

"The necessity for such action will be appreciated when it is stated, that before this requirement was exacted, the evidences of a want of preliminary education and training were so apparent in the correspondence of the Board that it is safe to assert that there were at least 700 graduates in the state who did not know how to spell the word diploma, the talismanic parchment upon which they laid so much stress as guarantee of their professional knowledge and standing."

The report shows also that much has been accomplished in ridding the state of a large number of itinerant quacks and "Indian Remedy" practitioners who were wont to fleece the people of their hard earned money by the most flagrant procedures. The new law will enable the board to practically suppress such juggling performers.

The qualifications and skill of practising midwives have also been materially increased through the pressure exercised by the Board of Health.

The Board of Health having reorganized under the new law, as one of its first procedures, after a full discussion of the applications of eight itinerant vendors of drugs, nostrums, etc., adopted the following resolution:

*Resolved*, That the applications now pending by itinerant vendors of drugs, nostrums, etc., for license to sell, and the tender of the fee of \$100 per month for each such license, be declined in the ex-

ercise of the discretion vested in this Board by section 11 of the Act to Regulate the Practice of Medicine—such itinerancy and the manner of vending being deemed prejudicial to the public welfare.

At the afternoon session, Dr. Clark presented the following resolution, and the same was adopted:

*Resolved*, That the phrase “medical colleges in good standing,” in the first section of the Act to Regulate the Practice of Medicine, approved June 16, 1887, is hereby defined to include only those colleges which shall, after the sessions of 1890 91, require four years of professional study, including any time spent with a preceptor, and three regular courses of lectures, as conditions of graduation, and shall otherwise conform to the Schedule of Minimum Requirements heretofore adopted by the Board.

Thus the Illinois Board of Health takes one more step forward toward the elevation of medical education.

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## VESICAL INJECTIONS OF IODOFORMIZED ETHER IN REBELLIOUS CASES OF CYSTITIS.

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In the *Lyon Médical* June 5, 1887, M. A. Chandelex reports some results obtained by him in the treatment of rebellious cases of cystitis by means of injections of a nearly saturated solution of iodoform in ether, or 13 parts of iodoform to 100 parts of ether. He thinks the choice of liquid a matter of considerable importance.

His first case so treated was a patient, æt. 32, affected for eight months with a very painful tuberculous cystitis, giving rise to efforts at micturition every half hour and accompanied from time to time with a slight hematuria.

He first saw the patient in September 1884. After having tried repeatedly instillations of nitrate of silver according to the method of Guyon (a measure which is generally successful in tuberculous cystitis) and without any other advantage than a slight diminution

of the daily number of micturitions and a very slight modification of the pains, he determined to inject a small quantity of iodoformized ether. October 2, he injected two grammes (half a dram) of the solution. Immediately the patient experienced atrocious pain, and for a half hour he cried and complained. But quiet followed. During that day and the succeeding one the acts of micturition were a little more numerous than before the injection; but the following days they diminished in frequency, and five days afterwards there were not more than thirty or thirty-five in the twenty-four hours. The injections were repeated four times at intervals of five days, gradually increasing the amount until the last was four grammes (one dram). Each time the pain caused was less severe, the micturitions became less numerous, and finally decreased to ten in twenty-four hours, and without any uncomfortable accompanying sensation. The blood had entirely disappeared from the urine. Six months later the improvement was maintained.

In four other patients he had made use of this treatment. Only one of them had a cystitis of tuberculous origin, and in him also the instillations of nitrate of silver had had no appreciable results, for micturition continued to be painful, frequent, (thirty to thirty-five times in twenty-four hours,) and slightly sanguinolent at the moment of emission of the last drops of urine. The treatment was carried out in the same manner as in the preceding case, and the results were even more satisfactory than in the first case.

An interesting phenomenon observed in this case was the distention of the bladder by the vaporization of the ether from the heat of the body.

The other cases submitted to this treatment were suffering not from tuberculous cystitis but from chronic cystitis of three, seven and ten years standing respectively, due in the first to gonorrheal inflammation and in the two others to rheumatism.

These patients urinated from seventy to ninety-six times in twenty-four hours. The urine was lightly clouded and contained a little muco-pus. A drop of blood was generally expelled after each act of micturition.



Nitrate of silver instillations led to some amelioration of the suffering, and reduced the number of micturitions to fifty in twenty four hours, but could not carry the benefit any further. Then the injections of iodoformized ether were resorted to as in the other cases. The pains, as in them, were severe at first but progressively diminished, and one of these patients at the sixth injection was able to bear six grammes (one and a half drams) of the solution for twenty-two minutes. This patient was so far cured that he was obliged to urinate not more than twelve to fourteen times in twenty-four hours instead of once every fifteen minutes as at first.

The others urinate only eight times a day, and all are relieved of their pain in micturition.

The professor is disposed to regard the distention of the bladder by the ether vapor as being perhaps the most important element in the curative action thus described.

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## PARALYSIS CONSECUTIVE TO THE INFECTION OF MEASLES.

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For the following abstract on this subject we are indebted to the *Journal de Méd. et de Chirurgie Prat.*, June 1887.

Cases of paralysis following measles are quite rare. Dr. Léon Bayle has studied this complication in his thesis in which he has brought together three cases observed by himself with others published previously.

As a cause of paralysis measles seems to come after diphtheria, typhoid fever and variola: it is almost always during the convalescence that the paralysis appears. As to its clinical form it is very variable. The cerebral form, without being the most frequent, is quite common. These paralyzes of cerebral form may be partial, affecting one limb, the muscles of the eye, the tongue, or may assume the form of hemiplegia with or without aphasia. The commencement, habitually quite sudden and unexpected, may be ac-

accompanied with fever. In this form the intellect may be more or less affected. Finally the duration of the affection varies according to the lesions on which it depends. Certain paralyzes of cerebral origin recover quickly without leaving any trace of their passage, while others depending on sclerosis allow infirmities to persist through life.

There are cases in which the paralysis is very transient. In one infant in the service of M. Sevestre, five days after recovery from measles, in full convalescence, a delirium came on suddenly in the night, with fever. In the morning there was somnolence, complete paralysis of the left arm and leg, loss of motion and sensation. But this hemiplegia lasted only three days, and was followed by complete recovery. The cerebral sclerosis has been noticed several times following acute diseases in general and measles in particular, and then epilepsy, idiocy, etc., may supervene.

But the paraplegic form of paralysis is that which most frequently follows measles. The onset of these paraplegias is ordinarily slow and insidious, and it is often the case that only at the moment when the patient wishes to arise, does he perceive the difficulty or impossibility of supporting himself upon his legs. Often the first symptom consists in formication, a sense of constriction, ordinarily slight pain in the limbs which the paralysis affects. Sometimes there is complete paralysis of the lower limbs, sometimes only paresis. Sensation is diminished or abolished, but not always in proportion with motion.

The plantar and patellar reflexes, sometimes exaggerated in the beginning, are ordinarily diminished or even abolished. The rectum and bladder may be respected, while, in a case published by Lardier, the paralysis may be absolutely limited to the bladder. As troubles of nutrition, some have observed muscular atrophies in the paralyzed limbs, atrophies ordinarily quite reparable. Cure is moreover habitually the rule after these paralyzes which seem to correspond to superficial lesions in general.

As a rarer manifestation MM. Rilliet and Barthéz cite a case

of anuria consecutive to measles. One may also observe true types of the atrophic paralysis of infancy. Sometimes also there are generalized, diffuse, extensive paralyzes, taking on the form of acute ascending paralysis which is more common as a sequel of typhoid fever and variola.

This last form is very exceptional; the paralyzes consecutive to measles are ordinarily of transient duration and present little gravity. This characteristic is found in the paralysis consecutive to the acute diseases in general. The prognosis is considered generally to be favorable, but this is most true for the paraplegic form.

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### NURSES AND SYPHILITIC NURSLINGS.

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In *l'Union Médicale* July 2, M. A. Morel Lavallée reports an interesting case with some practical suggestions.

The patient, Margaret R., 26 years of age was first seen by M. Fournier, Feb. 24. The right breast presented above and inwardly from the areola, upon which it encroached a little, an ulceration of about the size of a five centime piece, of a perfectly round shape. At the edge of the areola the border had a distinctly elevated prominence. The ulcer descended on the contrary with a gradual slope on the opposite side so that inwardly its surface is absolutely on a level with the neighboring skin.

But even at this point the border is indicated clearly, distinctly by a line lightly drawn, which continues around the whole circumference of the ulceration and presents a crimson red color, which shades off all around for about two or three millimetres.

Taking the two opposite sides of the ulcer between the fingers a sensation was given as if pinching a piece of visiting card, (parchment induration).

The fundus, already covered in its upper inner quarter with a cicatricial pellicle, presents in the rest of its area exactly the ap-



pearance of a section of a red muscle, upon which there were even detached aponeurotic intersections.

A curious fact was that while pressure exercised upon the borders of this red surface caused no sero-purulent, or sanguinolent secretion, there was to be seen coming up at three different points of the ulceration a lactescent liquid which the microscope showed to be simply milk. The patient stated that from the outset, these little drops of milk came forth spontaneously at this part.

The muscle red color, the fundus, smooth and even over half its surface, the presence at the anterior part of the axilla of a little ganglion which could be made to roll under the fingers, authorize the diagnosis of syphilitic chancre in spite of:

1. The absolutely perfect circle of the lesion.
2. The prominent appearance and raised border outward.
3. The absence of other information fixing the etiology.

This woman was confined January 19. Fifteen days afterwards there came a little pimple which became an actual ulceration; that is, it had assumed ulcerous characteristics only about fifteen days since.

Now, 1. The husband on examination was healthy, and presented no specific lesion in the mouth or elsewhere.

2. The woman asserted that she had not given the breast to any other infant, nor had she been touched or embraced by any other person than her husband.

3. She had used to empty her breast an instrument loaned by the mid-wife, but that was January 24 or 25, that is to say, three or four days before the appearance of the trouble, which the absence of incubation in this case forbade to be referred to this origin.

It being granted that the pimple commenced about eight days after the accouchement, it is certain that the contagion took place before the accouchement. But how? Direct or indirect? This it is impossible for us say.

This woman then is actually affected with a lesion which is certainly a syphilitic chancre. It is, in fact, impossible to think of

any other diagnosis. The hypothesis of a tertiary ulceration must be rejected, considering the absence of antecedents, the superficial exulcerated character of the lesion, the presence of the axillary ganglion, the red muscle appearance and the parchment induration of the ulceration.

Epithelioma was not to be considered on account of the recent commencement and rapid evolution of the ailment, to say nothing of the objective characteristics. There is a simple explanation for the interesting peculiarity noted above, that pressure caused the issue of milk from three points. Besides the fact that during lactation the glands of Montgomery sometimes secrete a lactescent liquid, it is not a rare thing to see some milk ducts straying away from the nipple upon the areola even to its periphery. Such is the case here, and two of these milk ducts passing under the skin in this patient have just been eroded by the chancre. It is a curious fact, nothing more, but one which we think has not hitherto been observed.

The chancre just described is separated from the nipple by the breadth of the areola. Now our patient has for two days discontinued nursing her baby, who is today, Feb. 24, absolutely free from every indication of contagion; likewise healthy, moreover, is a first child, a girl about two years old.

What course then shall a physician pursue in the presence of a nursing mother with a chancre near the nipple, who has nursed the infant during the fifteen days since she has had the chancre, while this infant is or appears to be as yet uncontaminated?

The chancre, we have said, is beyond the nipple, close to the areola; it is possible then that the infant has strictly speaking, escaped the virulent contact, besides that the contamination is not absolutely fatal. We ought then provisionally to consider that infant as healthy.

Then it is necessary that he no longer nurse the affected breast, for occlusion of the ulceration with adhesive plaster or otherwise would be as transient as it would be illusory. Likewise he must

not nurse the left (unaffected) breast, for, 1. The secretion of milk being bilateral, the breast not nursed would become enlarged and inflamed; 2. The sucking of this same left breast always on the hypothesis that the infant had escaped the contamination, would not long be inoffensive to him, considering the possible formation of fissures which would become also sources of contagion to him.

What then should be done, wean the infant, or give him to a nurse?

But this infant is possibly, without doubt, in the incubation stage of syphilis. For fifteen days hitherto he has been exposed to this infection. Then, taking the average of twenty-five days, in eight days, if he was infected at first, in twenty-three, if at the last day of this nursing, there may be seen in his mouth a syphilitic chancre.

Therefore we ought not to commit him to a healthy nurse. On the other hand if he proves to be syphilitic, the artificial feeding will be fatal for there will be above all things need of a nurse.

The problem then was this: To cause the infant to nurse safely even to the end of the approximate period of incubation, be it here, taking the extreme date, about twenty-three days. and on the other hand to preserve to the mother the secretion of milk in case that the infant once proved to be syphilitic, may come to need its use.

Then: 1. Let the infant nurse the left (non-affected) breast; and artificially empty the right (chancreous) breast, which will doubtless tolerate the incomplete depletion during the few days that the period of incubation for the infant will continue. For him the danger, if he is healthy, is at the minimum, since he has eventually only to dread contamination by the blood which might escape from fissures in the healthy nipple, and we do not know just when the blood in secondary syphilis becomes contagious.

2. To empty the injured breast with a breast pump being impossible on account of the pain which that produced, M. Fournier proposed to the patient to enter his ward for a few days' giving the



infant the left breast exclusively, while the right breast should be nursed by a puppy to be procured for the purpose.

The patient refused to remain.

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### PREGNANCY INDEFINITELY PROLONGED.

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In connection with the editorial on that subject in our last issue we are pleased to call the attention of our readers to a note in the *Jour. de. Méd. et de Chirurg. Prat.* for June last.

Dr. Fraipont publishes in the Annals of the Medico-Chirurgical Society of Liège a report on the work of Dr. Mueller relative to this much controverted question. This work starts with the communication of an unpublished observation from Prof. Stoltz of an extra-uterine pregnancy confounded with a uterine pregnancy until the autopsy. The author, stimulated by this observation, had the thought to seek similar errors to be found in science and to examine if it is possible that a uterine pregnancy may have a duration as long as the extra-uterine pregnancy, in a word, if an ovum which presents all the characteristics of maturity can continue in the uterus, living or dead, during one or several months or even whole years.

Several accoucheurs of talent, and notably among English authors, have admitted that in certain cases, rare it is true, the phenomena of labor have been manifested at the normal term, but were not completed, and were arrested. The fetus remains in the uterus, sometimes without causing modifications, but most frequently undergoing and producing various alterations. This it is which in England is designated as "missed labor."

The author carefully collected all the observations of protracted pregnancy published up to the time of his work, and, after having submitted them to a severe critical examination, he has come to the conclusion that there is no positive proof of the retention during more than ten months of a fetus living or dead. There are, he

says, not more than three or four that could be considered doubtful; but they are so incomplete and present such obscure points that no one could place any credit in them at present.

To affirm in the living subject that a pregnancy is uterine, it is necessary to be able to feel distinctly the bones of the fetus through the orifice of the neck and to be assured that the womb is not empty on exploring with a sound. Now the causes of error are too many to enumerate. Then as Mueller says, whenever there is no autopsy we can know nothing certainly; and even at an autopsy after a certain number of years of duration of an extra-uterine pregnancy, the empty womb is often so difficult to recognize, enveloped as it is in the masses of tissue of new formation surrounding the cyst, that one might think that there was the uterus where there was only a cyst, an error committed by the most eminent anatomists. That is just what had occurred in the case of Stoltz which was the beginning of Mueller's work.

According to the author, "missed labor" is simply labor which declares itself at term in extra-uterine pregnancy, but a labor which is incomplete, and gives place then to a pregnancy indefinitely prolonged, but extra-uterine and not uterine as is believed. For the present, says he in concluding, there exists no authentic observation of retention of the fetus in the womb beyond the term of an ordinary pregnancy.

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## CHRONIC INDURATION OF THE BREAST.

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In the June number of the *Jour. de Méd. et de Chirurg. Prat.* the editor gives an interesting résumé of the points made by Dr. Phocas with reference to this subject in a thesis on the relations between certain inflammations and tumors of the breast. He gives to this affection the name of *maladie noueuse de la mamelle*, or knotty disease of the breast, and notes particularly the possibility of an incorrect diagnosis. This affection, designated by different authors

by the names chronic mammary tumor, partial hypertrophy, chronic mammitis etc., appears in two different conditions. Sometimes the disease has been preceded by an abscess in the breast, and appears in women advanced in age: sometimes it follows upon other causes and appears in young women. In the first case the abscess may have existed at an epoch far removed from the moment when the lesion is observed. In the second, chronic contusion has been observed as constituting the cause, such, for instance as the compression of the corset and menstrual troubles.

The commencement of the disease is often slow and insidious; the patient discovers by chance that she has an enlargement of the breast, but often also pain is the first symptom to appear. When the disease has reached its full development, there is almost nothing to be seen except a vary slight deformity. On examination from before backwards, one almost always finds a movable, distinct tumor whose size varies from that of a hazelnut to that of a large walnut, whose consistence is firm and resisting, superficially situated, in general separated from the skin by a small quantity of soft tissues, and finally of that mobility of adenomata to the extent of being capable of displacement from two to three fingers' breadths in all directions, offering the sensation of a foreign body in the gland. But further exploration shows that this tumor is by no means isolated; at a greater or less distance from the principal tumor there exist a large number of other prominences, separate from one another by small intervals. The size of these nodosities varies from that of a pin-head to that of a pea. Their consistence is the same as that of the principal tumor. That which distinguishes them specially from the principal tumor, is their perfect connection with the mammary gland. If one takes the gland between two fingers, one can quickly determine that all these little prominences are an integral part of the gland which is, one might say, sclerosed, especially in its upper third, where one finds a quantity of these nodosities which are disseminated irregularly in the substance of the breast. One might imagine that he had pricked a great num-



ber of pins into its substance and could feel the heads through the skin. As to the principal tumor its mobility is not absolute; it is limited by a pedicle which it is usually possible to find on searching across the tumor; but it has no connection with the skin. As to functional signs they are reduced to pains, very variable according to the case, but which in some circumstances are so intense as to constitute one of the forms of the disease which has been described under the name of irritable tumors of the breast.

The course of the affection is fitful. There are alternations, oscillations, in the volume of the tumor; its termination may be by spontaneous recovery or by treatment which consists in compression; and it is the disappearance of these tumors which has led to the belief in the cure of cancer by certain forms of treatment.

There are also cases which one might call "*frustes*," (incomplete) in which the tumor exists alone without being accompanied by those little nodosities which give its particular character. These are the cases which are most difficult of diagnosis. This is based especially upon the fact that *the maladie noueuse de la mamelle* succeeds in certain cases to abscesses and in others is the result of a known irritation; that on palpation it is composed of a principal tumor, mobile but pediculated, accompanied by a multitude of little disseminated indurations in the thickness of the breast, which contract intimate connections with the gland; that it is often bilateral;

at it advances in an irregular fashion, and by jumps, and finally terminates favorably. But in the incomplete form, that is without the nodosities and fibromata, the resemblances are such that the diagnosis becomes very difficult, and so that one may ask if there is not an identity of nature between benign tumors and this form of mammitis. These tumors would be only a more advanced state of the affection which it is important not to misunderstand, since in this case all operative measures are contra-indicated.

## ALCOHOL IN HIGH LATITUDES.

Under this title *The Forum* for August has an article from the pen of Gen. A. W. Greeley, in which he relates his and his comrades' experience with alcohol during the time passed by them in the extreme north, on the notable Lady Franklin Bay expedition. It is interesting to note how Gen. Greeley's experience and conclusions confirm some of what are now the most generally accepted opinions regarding the effects and legitimate uses of alcohol, yet which in the minds of some need still further scientific confirmation.

The extreme exposure and great physical and mental strain to which the members of this notable expedition were subjected at Fort Conger for two years are now matters of history. "Despite all this," says Gen. Greeley, "no case of serious frost-bite nor any disabling illness occurred, save in one instance, when Sergeant Cice, the photographer, attacked by inflammatory rheumatism, was brought to camp by a reliable party. In this single case, Dr. Pavy and Rice, who composed the original party, had abundantly provided themselves with rum from an English *cache* in Lincoln Bay."

\* \* \*

"During the boat retreat southward from Conger to Cape Sabine, in August and September, 1884, a considerable quantity of rum and whiskey was taken with the party, but although there was much exposure from great physical labor, more than half the journey was completed before the issue of spirits was begun. It was commenced at a time when the party was somewhat disheartened by the surroundings, and the particular result thus sought was to benefit the men mentally rather than physically. The use of rum during the boat retreat appeared to be most beneficial when given to the men just after the day's work was over, and before they entered their sleeping bags. Before reaction came the men received hot food. Every one who could avoided drinking the rum until he had entered his bag. \* \* \* These special issues of rum, either

in the field or during the retreat rarely exceeded half a gill at a time; and when the men received for urgent reasons or on particular occasions, double the amount, they stated to me that its beneficial result seemed to be little if any greater than that of a half gill."

"The subject of alcohol was frequently and generally discussed during the winter at Cape Sabine, and all, without exception, concurred in the opinion that spirits should be taken after a day's labor was over, and not before or during exhausting work, nor while suffering from exposure that was to be continued. \* \* \* Later, when the party had been slowly starving for many months, and when the supply of food was so diminished as to necessitate a greater reduction of rations, the pure alcohol on hand was issued as food, being diluted by about three times its weight of water. Each man received daily perhaps a quarter of an ounce of alcohol, the effect of which was most beneficial. The general impression, with which I most heartily agreed, was that the alcohol supplemented food, and had a decided alimentary value. There could be no question of its beneficial effects as a mental stimulus to every member of the party, under our unfortunate condition at Sabine."

Physiologists are now pretty generally agreed, we think, that when sufficient food can be taken alcohol is unnecessary, and unless carefully used may be harmful even in what are considered small amounts, but when the amount of food is insufficient, alcohol given in proper quantities supplies the place of the deficiency of food and become thus useful, hence its advantage sometimes in febrile and other diseases. This is the opinion of Brunton and of Laudois, and of others who, like them, will be acknowledged high authority. Perhaps no one has ever had opportunities equal to Gen. Greeley's for observations on this particular point, *i. e.*, the advantage of alcohol to starving men. He certainly deserves great praise for having so well utilized them in the midst of the most adverse circumstances, showing, as he otherwise has, his scientific spirit. It cannot be less gratifying to scientific men generally



than it is to him to know that his observations confirm the results of other scientific work.

Statistics and other data have well established the disadvantages of the continued use of alcohol during exposure to heat and cold, or during exhausting physical activity; but the lay public is slow to learn the lesson, and there is much need to have it impressed. Gen. Greely's attractive article will certainly be of some educational value in this direction.

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A HYPNOTIC FORMULA.—Dr. J. S. Dorset gives the following formula, which he says, has given most satisfactory results in the State Lunatic Asylum at Austin, Texas, being a most satisfactory substitute for chloral and bromide of potassium mixtures, an efficient hypnotic and at the same time not disturbing the digestion.

R	Hyoscin hydrobromat,	-	-	-	-	-	$\frac{1}{50}$ gr.
	Paraldehyd,						
	Ol. amygdal,	-	-	-	-	-	āā 3ij.
	Chloroform,	-	-	-	-	-	m℥x.
	Ol. cinnammomi,	-	-	-	-	-	m℥ij.

M. Ft. two doses.

A dram dose at bed time is often sufficient to secure a good night's rest. The patients are not so nervous in the morning and are ready for their breakfast.—*The Texas Courier-Record*.

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MESSRS. WM. WOOD & Co., the publishers of the *Medical Record* have made a very generous proposition to the editors of medical journals not only in this but other countries. Having made arrangements for the preparation of complete reports of the meeting of the International Medical Congress at Washington for publication in the *Medical Record*, they offer to send gratuitously to any other journals desiring it an advanced copy of that report in English, French or German as the editor of such journals may desire. We expect to avail ourselves of this offer; and our readers will therefore have the benefit of the liberality and courtesy of the New York publishers to whom we hereby tender our sincere thanks on behalf of ourselves and our readers.

## BOOK REVIEWS AND NOTICES.

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MEDICINE AND MEDICINE MEN. BY JOHN GODFREY, Surgeon M. H. S., Louisville. By John P. Morton & Co., printers, 1887. 16mo.; pp. 34, paper.

The address of Dr. Godfrey at the anniversary meeting of the Louisville Medical Society was in verse, and is a very creditable specimen of that sort of literature.

The following lines which would apply as well to many another society, give some indication of the style of the writer:

"The time for us to meet is fixed  
By constitutional power;  
But something seems to come betwixt  
Most members and the hour.  
At any rate they do forget  
The date of our convention.  
Well, doctors cannot always get  
Union by first intention."

TRANSACTIONS OF THE TEXAS STATE MEDICAL ASSOCIATION. ANNUAL REPORT OF THE SPECIAL COMMITTEE ON SURGERY, 1886. Compiled and edited by GEORGE CUPPLES, M. D., Chairman. Roy. 8vo., pp. 26, paper.

This report of a special committee on surgery is something unique in the way of a committee report to a medical association. If such a system of reporting the work done in surgery by various practitioners in the state shall be kept up from year to year, there will soon be an accumulation of very valuable data for the preparation of a history of surgery in that state. The number of surgical operations tabulated in this report is 1046. The corresponding report prepared last year by the same committee comprised some 4239 operations.

The tables present data of interest with reference to Various Amputations; Disarticulations; Resection of Bones; Ligation of Arteries; Tumors, Noteworthy for Site, Size or Character; Ope-

rations involving Head and Neck; Operations involving the Thorax; Operations involving the Abdomen; Operations on Rectum and Anus; Operations on Male Genital and Urinary Organs; Operations on Female Genital and Urinary Organs; Operations involving Bone and Joints; Operations on Organs of Special Sense; Miscellaneous Operations.

Then comes a summary of the operations under each class. Anesthetics used; Antiseptics, and finally a tabular summary of the most important operations.

Officers of medical societies and committees of such societies can get excellent suggestions from a consideration of such a report as this; and Dr. Cupples, the reporter, deserves high credit for the patient and laborious work which he has put forth in accumulating the material and compiling this report.

**PUBLIC HEALTH.** The Lomb Prize Essays Award made at the Thirteenth Annual Meeting of the American Public Health Association, Washington, D. C., Dec. 10, 1885. With an appendix. (Second edition.) Concord, N. H., 1886, 8vo., pp. 198, cloth.

It is a matter of sincere congratulation to all sanitarians that there has been so much demand for the excellent series of papers called out by the Lomb Prize in 1885 as to necessitate the issue of a second edition. We have previously expressed our hearty interest in these papers when they first appeared, and we now commend them most sincerely to any of our readers who are not already familiar with them.

We are pleased to see that the committee have issued the essays separately in paper covers. Copies may be procured by ordering from Dr. I. A. Watson, Sec'y A. P. H. A., Concord, N. H.

**TRANSACTIONS OF THE TEXAS STATE MEDICAL ASSOCIATION.** Eighteenth Annual Session held at Dallas, Tex., April 27, 28, 29 and 30, 1886. (Austin, Texas. Printed for the Texas State Medical Association, 1886.) 8vo., pp. 691, cloth.

This is a large and handsome volume, well printed and well bound, with the "lone star" pressed in gold upon the side of the cover.

A large number of interesting and instructive papers were presented to the Association, and they have been put into excellent shape by the committee on publication; and the work is a credit to the association and to the profession of that great state.



One suggestion, however, we will make. Waiving all question as to the expediency of admitting advertisements upon extra pages at the front and back of a volume of transactions of a state medical association, certainly we think there can be no good excuse for an association, whose financial status is as thoroughly satisfactory as that of the Texas State Association, letting an advertisement be placed upon the very back of its title page.

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MISSISSIPPI VALLEY MEDICAL ASSOCIATION.—The thirteenth annual session of this wide awake, working society was held at Crab Orchard Springs, Ky. July 13, 14, 15. A number of valuable papers were read and followed by interesting discussions, while the social features were by no means neglected. All who were privileged to be present found it both enjoyable and profitable.

The officers for the ensuing year are Dudley S. Reynolds, Louisville, president; A. Dunlap, Ohio, Y. H. Bond, St. Louis, A. R. Jenkins, Ky., H. C. Fairbrother, Ill., D. A. Thompson, Ind., Vice-presidents; J. L. Gray, Chicago, permanent Secretary; A. H. Ohmann-Dumesnil, St. Louis, Treasurer; I. N. Love, Chairman committee of arrangements. The next meeting is to be held in St. Louis the second Tuesday in September, 1888. St. Louis will give the association a hearty welcome.

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THE AMERICAN OPHTHALMOLOGICAL SOCIETY held its twenty-third annual session at the Pequot House, New London, Conn. July 20 and 21. Of the additions to the membership of the society three were from the West, viz. M. H. Post, M. D. of St. Louis E. C. Rivers, M. D., of Denver, Col., and David Debeck of Cincinnati.

Many interesting papers were read and discussed, the time of the several sessions being fully and profitably occupied.

The following officers were elected, President, Wm. F. Norris, M. D. Philadelphia; Vice-president Hasket Derby, M. D. Boston; Secretary and Treasurer, O. F. Wadsworth, M. D., Boston; Corresponding Secretary, J. S. Prout, M. D., Brooklyn. The next meeting is to be held at the same place on the third Wednesday of July, 1888.

## BOOKS AND PAMPHLETS RECEIVED.

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BOOKS.—A Practical Treatise on Obstetrics. Vol. IV. Obstetric Operations. The Pathology of the Puerperium, By A. Charpentier, M. D., Paris. Illustrated with lithographic plates and wood engravings. This is also Vol. IV. of the "Cyclopedia of Obstetrics and Gynecology" (12 vols.), issued monthly during 1887. Price of the set \$16.50. New York: William Wood & Co.—Practical Urine Testing. By Charles Godwin Jennings, M. D. Detroit, D. O. Haynes & Co., 1887, 16mo., pp. 124, cloth.—What to do in Cases of Poisoning. By William Murrell, M. D., F. R. C. P., First American from Fifth English edition. Edited by Frank Woodbury, M. D., Philadelphia Medical Register Co., 1887, 8vo., pp. 158, cloth, \$1.00 post-paid.—On the Pathology and Treatment of Gonorrhea and Spermatorrhea. By J. L. Milton, New York, Wm. Wood & Co., 1886. 8vo.; pp. 484; cloth; \$4.00 —American System of Gynecology. Edited by Matthew D. Mann, A. M., M. D. Vol. I. Illustrated with three colored plates and two two hundred and one engravings on wood. Philadelphia, Lea Brothers & Co., 1887, 8vo., pp. 789, sheep.—A Practical Treatise on the Diseases of the Hair and Scalp. By George Thomas Jackson, M. D., etc. New York, E. B. Treat, 1887. 8vo., pp. 356, cloth, \$2.75.

PAMPHLETS AND REPRINTS.—A Unique Case of Bilateral Athetosis. By C.H. Hughes, M.D. (Alienist and Neurologist.)—Report of Proceedings of Illinois State Board of Health, Quarterly Meeting, Chicago, July 8, 1887.—Polar Method of Electrotherapy in Gynecology. By Geo. J. Engelmann. (Med. News, May 14, 21, 28.)—Galvanic and Faradic Electricity in Treatment of Uterine Displacements. By Geo. J. Engelmann, M. D. (Courier of Medicine, March and April.)—The Use of Electricity in Gynecological Practice. By Geo. J. Engelmann, M. D. (Gynecological Transactions, 1886.)—Annual Announcement of Trinity Medical School, Toronto session of 1887-8.—Twelfth Annual Announcement and Catalogue of Meharry Medical Department of Central Tennessee College, Nashville, Tenn., 1886-87.—"Renal Colic Parasitic and Calculus." A Criticism. By J. B. Marvin, M. D., etc. (Southwestern Medical Gazette, June, 1887.)—College of Physicians and Surgeons in the City of New York. Annual Catalogue and Announcement, New York, July, 1887.—Some Important Points in the Treatment of Deep Urethral Stricture. By F. N. Otis, M. D., etc. (N. Y. Med. Jour., Feb., '87.)—The Technique of Tracheotomy and Intubation of the Larynx. By Charles

Godwin Jennings, M. D., etc. (Trans. of Mich. State Medical Society, 1887.)—Observations on Police Service and Physique in St. Louis.—Essential Individual Hygiene of a Municipal Police Force for the Prevention of Pulmonary Diseases. By Geo. Homan, M. D. 8vo., pp. 20; paper.—Address in State Medicine. Recent Advances in Preventive Medicine. By Geo. H. Rohé, M. D., etc. (Jour. of Am. Med. Assoc., July, 2, '87.

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INEBRIATES IN AMERICA.—DR. CROTHERS says that not less than two thousand inebriates are under treatment in hospitals in America, over a thousand being in special hospitals. They represent most largely the incurable cases; persons who have tried every means found in the pledge, prayer and by moral suasion, and exhausted every resource of home and friends, and come as a last resort expecting extraordinary change and cure. They have been victims of this disease from five to thirty years, and present the most complex and varied degrees of physical and mental degeneration. Yet notwithstanding this fact, the experience of the few scientific hospitals in the results of treatment is exceedingly promising. Statistics of over three thousand cases, which have been under treatment at different hospitals, indicate nearly forty per cent restored, and temperate after a period of from six to eight years from the time of discharge from the hospital. The best authorities unite in considering thirty-five per cent of all who remain under treatment one year or more as permanently restored. In view of the chronic character of these cases, and the imperfect means of treatment, these statistics are encouraging, and indicate great possibilities in the future from a better knowledge and control of these cases.

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AMERICAN NEUROLOGICAL ASSOCIATION.—The thirteenth annual meeting of this association was held at Long Branch, N. J. July 20, 21 and 22. Though this association is not large in numbers the meeting was an interesting one for those present, and the discussion of the papers was quite animated.

The following are the officers for the coming year: President, J. J. Putnam, Boston; Vice-President, Wharton Sinkler, Philadelphia, and B. Sachs, New York; Secretary and Treasurer, Graeme M. Hammond, New York; Councillors, Geo. W. Jacoby, New York, and Rob't. T. Edes, Washington, D. C.

The treasurer's report showed a balance in the treasury of \$110.



## REPORTS ON PROGRESS.

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### MEDICINE.

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*Antipyrin and Antifebrin.*—DR. G. W. BARR gives the results of a quite extended series of observations made upon himself during a five weeks' illness from neurasthenia complicated with malaria. For a considerable part of the time he made notes every fifteen minutes as to the conditions present.

Comparing the effects of the two drugs antipyrin and antifebrin he gives the following table:

ANTIPYRIN.	ANTIFEBRIN.
Lowers temperature in half an hour.	In an hour or more.
Effect lasts two hours.	Effect lasts six hours.
More diaphoretic.	More diuretic.
Depressing after-effects.	No after-effects.
Cerebral sedative.	Cerebral vaso-motor and muscular (?) stimulant.
Dose 15 to 30 grains.	Dose 5 to 15 grains.
Tolerance from continued use.	Ditto.

He thinks that antifebrin is much to be preferred in continued fevers because the dose is one small capsule instead of three, the effect lasts so much longer, the tonic stimulation excels the depression and after malaise, and the cost is one-fourth that of antipyrin. The only objection is its relative slowness of action. Whenever one can wait an hour for the antipyretic action to begin he greatly prefers the antifebrin. He thinks the tonic or stimulant effect is of value with weak patients.

The Paris correspondent of The "*London Lancet*," April 30, says that Prof. Germain Sée has found antipyrin a most valuable agent for the relief of pain, especially nervous pain, as neuralgias, neuritis, locomotor ataxia, the pain accompanying cardioaortic disease, etc. Prof. Sée, gives 3 to 6 grammes daily. If too much is given

at one time, nausea and giddiness may supervene, but when the whole amount is divided into small repeated doses of half a gramme, no disagreeable effects are observed. Antipyrin, he says, may be given and continued for a length of time with but little risk. Antifebrin, on the other hand, is dangerous when administered in doses exceeding one gramme.—*Therap. Gaz.* June, 15.

*The Etiology and Mechanism of Asthma.*—No subject in medicine has given rise to greater discussion or criticism than that included in the term "Asthma." It was indiscriminately applied by the older writers to dyspnea arising from various causes, and at the present time, although the majority confine the term to paroxysmal dyspnea, accompanied by characteristic physical signs, still we find it used in a loose way to describe dyspnea due to entirely different pathological conditions.

In a study on the etiology and mechanism of asthma, Dr. William C. Glasgow confines the term to the paroxysmal dyspnea, which is always characterized by positive physical signs, and he considers asthma to be a disorder of vascular irritability; that the paroxysm is directly due to a partial occlusion or cylindrical narrowing of the lumen of the bronchi through the swelling of the bronchial mucous membrane; that this swelling is caused by a vasomotor spasm of the arterioles with a saturation of the tissues by the liquor sanguinis; this condition is accompanied by a general high blood pressure.

With this theory we find a complete explanation of all the physical signs of asthma. We see the possibility of the rapid changes of physical signs observed during the paroxysms, and we have in it the physiological action of all the drugs which experience proves to be of value in allaying the paroxysm—the nitrite of amyl, morphia, chloral, lobelia, and iodide of potash in their action allaying the spasm at the same time that they tend to reduce general blood pressure; whilst drugs like the bromides prove of little value in breaking the paroxysms when once in force, although they are serviceable in preventing a recurrence.—*Am. Jour. of the Med. Sci.* July, 1887.

*Phosphate of Sodium in Diarrhea.*—*The Therapeutic Gazette* (July 15) calls attention to the value of the phosphate of sodium as a remedy for summer diarrheas. In the summer diarrheas con-

nected with a lack of digestive power, with clay-colored or greenish stools the remedy is particularly favorable in its action. In nursing children ten grains may be given in each bottle of milk, or it may be given in a little water soon after eating, small doses frequently repeated have a better effect than a single large dose. In cases where there is habitual constipation alternating with diarrhea it has a favorable action.

*Cold Baths in Summer Diarrhea.*—Some years ago, Dr. C. G. Comegys, of Cincinnati called attention to favorable results obtained by the use of cold baths in the diarrheas of young children in hot weather with more or less pronounced elevation of the temperature of the body. He found that the cold baths often sufficed for a cure without any medication and sometimes where all other measures had failed. The bath should be given as often as the child's temperature rises, rarely every three hours, generally two or three times a day being sufficient. The temperature of the water should be 80° or thereabout, and immersion should be continued long enough to produce a distinct effect. The editor of the *Therapeutic Gazette* (July 15) thinks that when properly managed these baths are valuable in cases of diarrhea due to extreme heat.

*Salol.*—GEORGI, of Görlitz, and SAHLI of Berlin, have been using salol, or salicylate of phenol quite extensively, and have published the results of their experience in the *Therapeutische Monatshefte*.

They say that they have not observed the unpleasant after effects reported by other practitioners. The carbolic acid coloring of the urine persisted during the entire time of administration. The average dose which they used was ʒijss—iij. In general there was little advantage over salicylic acid. For antipyretic action the dose was grs. xv—xxx.

They gave it in powder on the tongue to be washed down with water or in tablets compressed with a little starch.

Some of those who have tried this new remedy in our own country prefer it to salicylic acid or the salicylate of sodium.

It is insoluble in water or in the acid secretions of the stomach and hence causes no nausea, but on passing into the duodenum and being acted upon by the pancreatic juice it is claimed that it is decomposed into salicylic acid and phenol.

Sahli claims good results from its administration in rheumatic



troubles, sub-orbital neuralgia, as an antipyretic, in diabetes, intestinal catarrh, typhoid fever, cholera, catarrh of the bladder, ozena, otorrhea, and locally in gonorrhea and as a mouth wash.

*Iodol*.—SEIFERT reports satisfactory results from the use of iodol in the treatment of laryngeal tuberculosis. In other diseases also it was found most acceptable because of its freedom from odor, non-irritability, lessening of secretion and power of disinfection.—*Therap. Gaz.* Jan. 15.

*Oyster Shell for Cancer*.—DR. PETER HOOD published in the *Lancet* for May 7, 1887 a communication on the use of calcined oyster shells for the purpose of arresting the growth of cancerous tumors. He mentions several cases in which a persevering use of the calcined shell powder arrested the growth and pain in tumors of an undoubted cancerous character. An advantage of the treatment is that it may be readily prepared at home by baking oyster shells in an oven and then scraping off the calcined white lining of the concave shell. The substance thus obtained is to be reduced to a powder, and as much as will lie on a silver quarter taken once or twice a day in a little warm water or tea.—*Therap. Gaz.* June 15.

*Biniiodide of Mercury in Scarlet Fever*.—DR. CLEMENT DUKES calls the attention to an observation made by Dr. Illington to the effect that the biniiodide of mercury is a specific in the treatment of scarlet fever. Dr. Dukes has tried the remedy in a number of cases with great satisfaction, claiming that it not only arrests the fever but prevents desquamation wholly or to such an extent that only a slight scurfiness of the skin of the hands and feet arises. It may be given in pill form or in liq. hydrag. perchloridi c. potas. iodid. He summarizes the theory of the action of the drug as follows: 1. If the bacilli of scarlet fever are only discovered in the blood for about three days; 2, if the bacilli, after this date, chiefly occupy the desquamating cuticle; 3, if this desquamation can be prevented altogether by a medicine which destroys bacilli; 4, then in all probability, the infection of scarlet fever will only last a few days, and we are within a measurable distance of limiting the spread of scarlet fever, and of removing its fangs by preventing the sequelæ.—*Brit. Med. Jour.* July 9, 1887.

*Cocoa Nut as a Teniafuge.*—DR. ALVAREZ suggests in the *Revue Balear de Medicine* the use of cocoanut as a teniafuge. Its administration is most easy; the dose for an adult is 200 grammes of the kernel beaten up with sugar. This is taken in three portions at intervals of half an hour. Then four grammes of castor oil. This is the first time, we believe that teniafuge action has been attributed to this fruit, which is at once economical and agreeable. The assertion of the Spanish physician deserves to be considered. *Revista medica de Sevilla—Nouveaux Remedes*, June 1887.

*Benzoate of Soda in Affections of the Pharynx and Larynx.*—DR. Albert Renault has communicated to the Clinical Society of Paris three cases of recent acute laryngitis, dating from 24 to 36 hours. The three patients were cured rapidly under the influence of the benzoate of soda, in the dose of 6 grammes a day. M. Renault recommends to give this remedy in broken doses (50 centigrammes at a time); instead of using the artificial benzoate of soda, it is preferable to use the salt obtained by the aid of benzoic acid prepared from benzoin and not that made by means of the chloride of benzol.—*La France Méd.—Lyon Méd.* June 26.

*Calomel and Bromide of Potassium.*—M. PIERRE VIGIER calls attention to the incompatibility between these two drugs. The reaction between calomel and a solution of iodide of potassium by which a protiodide of mercury is formed is well known, but M. Vigier remarks, that there is the same necessity for caution in regard to the prescription of calomel and the bromide of potassium. Though the chemical reaction is less marked, still the two should not be given in combination nor with less than five or six hours interval between the administration of the two drugs,—*Gazette Hebdomadaire*

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## SURGERY.

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*Sarcoma of the Female Breast.*—DR. S. W. GROSS, in an exhaustive paper based upon a study of 156 cases, finds that of the varieties of sarcoma, the spindle-celled, which include the fibrous, constitute 68 per cent, the round-celled 27 per cent, and the giant-celled 5 per cent., of all cases.

Of the entire number only 4, or 2.70 per cent, occurred before the sixteenth year, or during the developmental state of the mam-

ma; 67, or 45.27 per cent., appeared between the sixteenth and fortieth years, or at a period when the breast and genitalia are functionally most active; and 77, or 52.02 per cent., after the fortieth year, or during the period of their functional decline. Their etiology is most obscure, since their development is rarely traceable to injury or disease, and is not influenced by hereditary predisposition, while the social state and menstrual irregularities or arrest are surely unimportant agents in their production. Their growth might naturally be expected to be connected with menstruation, pregnancy, or lactation, or with conditions which render the mammary gland more vascular; but the influence of an increased flow of blood to the organ, which has been assumed by certain authors, is not confirmed by an analysis of the cases that he has collected. Thus, in only three examples was an increase in bulk witnessed at the menstrual period, while in two the tumor became smaller. In one the rapid growth began during pregnancy, and in two at the menopause.

During their further progress sarcomata continue, as a rule, mobile and free from superficial or deep attachments; the contiguous structures are not invaded by tumor elements; the skin remains natural in color and texture; the subcutaneous veins are not enlarged, the nipple is normal; and the associated lymphatic glands are not contaminated. To these general statements the following exceptions were noted.

They are locally infectious in 14.19 per cent. of all cases. The skin is ulcerated in 18.59 per cent, and discolored in 23 per cent. The superficial veins are enlarged in 15.39 per cent. The nipple is retracted in only 3.25 per cent. The axillary glands are infected in only 1.9 per cent, and their immunity is a valuable sign in the differential diagnosis. A discharge from the nipple occurs in one out of every nine and a half of cystic sarcomata. Pain is met with in 35.71 per cent of all cases.

Sarcoma is eminently malignant. Thus, of the 92 cases only 1 ran a natural course, it being an example of round celled tumor of both breasts, that proved fatal, with presumed secondary deposits, in seven months from the first appearance of the disease. The remaining 91 were subjected to the knife. Of these, 32 were well for periods which varied between one month and ten years and nine months; 42 were marked by local recurrence; in 8, not only was there regional reproduction, but metastases were found post-mortem; 3 recurred, with unmistakable evidences of general dis-



semination; 4 were characterized by metastases, and 2 by presumed metastases without recurrence. In other words, 64.83 per cent. of these cases were endowed with malignant features.

Of the 53 cases in which the disease recurred locally, in more than one-half, or 57.7 per cent., the return took place in 6 months, while after 12 months there were only 13, or 28.8 per cent., and of these there were only 4, or 8.8 per cent., after 2 years. These statements lead to the belief that the chances for the patient are relatively good after the lapse of 2 years, and that the prognosis is all the more favorable as the period of freedom from signs of local contamination prolongs itself. As the latest date of reproduction was 4 years, it may be assumed that the 12 cases which remained well after the lapse of that time were permanently cured. The average date of recurrence was  $10\frac{1}{2}$  months, and the total life of these patients from the first observation of the disease to the final report after the last operation was 7 years and 9 months. The number of recurrences, or operations for recurrence, was 1 in 23 cases, 2 in 13 cases, 3 in 7 cases, 4 in 1 case, 5 in 4 cases, 6 in 2 cases, 7 in 1 case, 12 in 1 case, and 22 in 1 case.

Sarcoma is less infectious locally, but more infectious as regards the general system, than carcinoma. Its more relatively benign character is shown not only by the larger proportion of cures, but also by the fact that the average duration of life, from the first observation of the disease to the date of the last removal after operation, is forty-two months longer; and this contrast becomes the more striking when it is stated that the majority of the sarcomatous patients were still living, and the majority of the carcinomatous subjects were dead.

Not only is this statement true for sarcomata in general, but it holds good for the three varieties, since the average life for round-celled sarcoma is fifty-four months, ninety months for the spindle-celled, and one hundred and eight months for the giant-celled.

The treatment may be summed up in a few words. The entire breast, along with any skin that may be invaded, must be extirpated, especial care being paid to the complete removal of every particle of paramammary fat and the fascia of the pectoral muscle, in which tissues experience shows that recurrence takes place. In the event of repullulation the growths should be freely excised as fast as they appear, as such a practice not only prolongs life, but may bring about a final cure.—*Am. Jour. of the Med. Sci.* July 1887.

## SOCIETY PROCEEDINGS.

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### ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

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Stated Meeting, February 8, 1887 Dr. Hulbert in the Chair.

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#### PERSISTENT DIVERTICULUM.

*Dr. Todd* presented the intestines of an adult showing a persistent diverticulum of the small gut. Occasionally we find in the lower part of the ileum about three feet from the ileo-cecal valve, a pocket or diverticulum, the remains of the canal connecting the alimentary tract in the fetus, with the umbilical vesicle, the rest of this canal having atrophied and disappeared in the due course of development. Sometimes, instead of this disappearance, this distal part persists as a fibrous cord connected with the navel. The connection with the navel may in time break away and the cord be thus allowed to float amidst the coils of intestines; an adhesion is likely to occur between it and the mesentery or intestines, thus giving rise to a loop into which a knuckle of gut may slip and be detained; in such a case we have a hernia, to relieve which laparotomy will be required.

The specimen presents just such a loop. Proceeding from the insignificant diverticulum we observe a fine cord the other end of which is adherent to the mesentery near by. No hernia appears ever to have occurred, but plainly the individual was in constant danger.

The specimen is a particularly interesting one, now that abdominal section is advocated as an exploratory measure in obscure cases. Two years ago the *London Lancet* published a case of hernia of this nature occurring in a boy ten years old. He was suffering with all symptoms of hernia, but no hernia could be found. As the case seemed desperate the abdomen was opened, when the strangulated gut at once appeared. The fine cord was snipped across with the scissors; the patient recovered. A surgeon would certainly be justified in opening the abdomen under such circumstances. Indeed, considering the wonderful success of abdominal

surgery, it might be said, the surgeon could not be justified in not opening the abdomen in such a case.

#### EPILEPSY.

*Dr. Herman* read a paper on Epilepsy. vid p. 193.

*Dr. Engelmann* asked how far symptoms which accompany other diseases would be considered epilepsy, and how far they would be merely called epileptoid. All those symptoms which *Dr. Hermann* had mentioned, are frequently found accompanying uterine disease, and yield to the treatment of the uterine disease. Are those epileptoid symptoms, or how would he classify them?

*Dr. Hermann* said that if the attacks, the convulsions, are chronic and recur at stated intervals, with a period of well-being intervening, he would consider those cases epileptic, whether the attacks were caused by reflex irritation from the uterus or from any other region.

*Dr. Engelmann* asked if this would be so even if they yielded to the treatment of the uterine disease and not to treatment directed to the epileptic attack direct?

*Dr. Hermann* said yes, even if they are due to uterine disease. Simple convulsions, occurring as they do in diseases of the womb, child-birth, puerperal eclampsia, etc., though the attack itself looks like a single attack of epilepsy, and was formerly called acute epilepsy, would not justify us in making a diagnosis of epilepsy; if the attacks continue, however, at stated intervals, the case would in his opinion be considered epilepsy.

*Dr. Eversole* asked how often—or in what percentage of cases, biting of the tongue or lips occurs.

*Dr. Hermann* replied that biting of the tongue occurs mainly in those cases which occur at night. There are a great many cases in which the patient never bites his tongue. It is not typical of epilepsy; it is simply an accident which occurs in convulsions. In some cases there is considerable hyperemia and change of the centre of the hypoglossal nerve, the nerve which supplies the tongue, and it may be in these cases that these centres are affected more than in other cases in which biting of the tongue does not occur.

*Dr. Nelson* asked whether there is not a class of epileptic seizures in which unconsciousness does not occur at all. He had seen within a very few days the report by an English neurologist of a series of cases that were different in that one particular from most cases, in



that there was no loss of consciousness, and still they were classified as being epilepsy.

*Dr. Hermann* answered that such cases do occur, but if it were not for the fact that some of these attacks are accompanied by short periods of unconsciousness, sometimes only momentary, and which sometimes seems to be incomplete, the diagnosis of epilepsy could not be made with any certainty.

*Dr. Hulbert* asked if *Dr. Hermann* considered ovarian irritation, such for instance as would result in epileptic seizures so far as the convulsion was concerned, these seizures being of a chronic character, periodical, and with a distinct state of unconsciousness occurring—whether he would consider them true epilepsy.

*Dr. Hermann* said he would.

*Dr. Hulbert* asked if *Dr. Engelmann* had ever performed ovariectomy in a case of that character.

*Dr. Engelmann* thought that the only case on which he had operated where the attacks occurred without unconsciousness, that was affected with any nervous affliction of that kind, was one whom *Dr. Hulbert* saw at the Female Hospital afterwards, and that was rather a mild form of insanity. He saw that patient a few months ago, and she had been serving as help in a family of an officer at some northern fort and was just going to New Mexico, she was apparently well, at least fairly so when she could get light house work to do at a pleasant place, but always a sufferer when there was any danger of hard work.

In some cases he had seen the most terrific attacks of that kind with unconsciousness coming periodically—that is not in relation to the menstrual period, but every week or sometimes a few times a week, sometimes only once in two weeks—stopped by the relief of the pelvic disease; and then again he had seen cases of very mild form which had some uterine or ovarian trouble, and in which the treatment of the trouble though locally successful had no effect on the mental state at all or only a temporary effect. He would like to know whether we can determine such cases beforehand, or whether we must attempt the treatment of them.

*Dr. Hermann* said there is no certain way to determine the cause in these cases, though in many of them we are morally certain that the uterine disease has been the cause of the trouble; but even if we succeed in curing the uterine affection, the epileptic trouble may have become established, so that, even if the uterine affection is relieved, the epilepsy continues.

*Dr. Hulbert* said there was then a case at the hospital which had been there off and on for the last four years. The patient was about 17 or 18 years of age, had irregularly been making attempts at menstruation ever since her 14th year; the last time except the present one that she was in the hospital, under the use of tonic treatment, she succeeded in passing three menstrual periods, having a normal flow, very slight pain, and very slight nervous disturbance. All her seizures seem to be confined to the menstrual period, when she is under the bromides. When she goes out from the hospital and is not under treatment, the attacks seem to increase from day to day, and finally they continue between the menstrual period, but are aggravated at that time. During most of the attacks there is a momentary loss of consciousness; she has falls during her more severe attacks and injures herself very severely; and at times when she is unwell there seems to be an attempt at menstruation. At the menstrual periods the unconsciousness is decidedly pronounced, continuing from fifteen minutes to half an hour. These attacks generally occur during the night. There was a question whether in that case there was any ovarian irritation causing the difficulty, or whether it was simply an hereditary difficulty. The entire family has a history of insanity and epilepsy. A brother is in the poor house, an epileptic; the father was a drunkard, and the mother states that the time when she supposed this child was conceived, was during a drunken debauch of her husband.

*Dr. Frank Glasgow* asked in regard to epilepsy due to peripheral irritation, if, after it has become established it does not tend gradually to disappear after the source of irritation has been removed, for instance, in such cases as Battey brought to the notice of the profession, where he removed the ovaries, and in many cases the epileptic attacks disappeared. Now there are many cases which he has cited lately in which he does not give up hope of improvement; in these cases only two years have elapsed.

*Dr. Hermann* said that it is certainly a fact that cases of epilepsy in which the cause has been removed have been cured, and in some cases the cure has been only gradual. It certainly gives the patient a better chance if the cause is removed, and he would hope in those cases to obtain a cure, and would not relinquish his efforts for several years anyway.

*Dr. Homan* inquired whether there was any distinctive symptom of genuine epilepsy as distinguished from hystero-epilepsy—those

morbid features that simulate it. A young lady from a distant part of the state had come here for treatment, one feature of whose case was a tendency to genuflexion—dropping on her knees. He did not think there was any loss of consciousness at any time. Whether that was to be called epilepsy or not, he did not know; whether loss of consciousness is to be considered essentially a feature, or whether this other group of symptoms that was present in her case would constitute it epilepsy without “hystero-” prefixed.

*Dr. Hermann* remembered the case, a young lady in whom the menstrual periods came on rather late—an ambitious girl, who was somewhat over-worked in school. She began to suffer from weak spells, as her folks called them; there were spells in which she would suddenly lose the use of the lower extremities, sometimes dropping on both knees, sometimes on one. There was no apparent loss of consciousness. These attacks came on two or three times a week. The girl had no appearance of hysteria, but at one time she had a more severe attack, in which she did lose consciousness for a little while, and also had a slight convulsion. That happened last spring, and he had not heard from the patient since. The tendency there was to develop epilepsy, and he was very much afraid it would be developed, and this one attack would be sufficient to enable one to make a diagnosis of epilepsy.

*Dr. Grindon* asked in relation to the importance of loss of consciousness as a factor in making a diagnosis, what is the rule in cases of cortical epilepsy, the so-called Jackson’s epilepsy. A case which prompted the question was that of a little girl, fourteen years old, who had menstruated several times before she came under his observation, with no particular disturbance more than is usual. She had been subject to fits for a long while, apparently ever since she had been quite a small child. At the time he saw her the paroxysms came on three or four times a day. Fortunately he saw her in one paroxysm. She said, “It is coming on now.” Being asked how she knew, she said, “I feel kind of paralyzed on one side.” Then she got down on the floor very carefully, and began to have a violent hemiplegic convulsion, limited altogether to that side. She rolled up her eyes as epileptic patients very frequently do, showing the whites of their eyes; the progress of the attack was peculiar, beginning with the arm and growing more violent, gradually extending to the leg and passing off in the same manner. He thought, at first, that she was feigning, but if an ig-



norant person, who knew nothing of the symptoms of these seizures, had been feigning, she probably would have moved both extremities at the same time, and would not have restricted the paroxysm to one side. He didn't think there was any manifestation of the paroxysm about the muscles of the face except that throwing up of the eye-balls. As far as he could judge, there was at no time any loss of consciousness, and he asked her afterward if she knew what had taken place, and if she was conscious all the time, and she said she was. Of course there might have been a period of unconsciousness which she could not realize. He would like to know whether Dr. Hermann would include cortical epilepsy in his definition of epilepsy, properly speaking, or put it by itself.

*Dr. Hermann* said he would include cortical epilepsy in the definition of epilepsy, if the symptoms conform to or comply with the demands in diagnosing a case of epilepsy. In these cases of cortical epilepsy it is true that the patients preserve their consciousness longer. From the first they will feel a convulsion coming on; as a rule, they *do* become unconscious; in some cases the unconsciousness is very slight, and there are some cases reported in which it has been denied that there was any unconsciousness at all; but certainly in some of their attacks they are unconscious or else we would not be able to make a diagnosis of epilepsy. He had under observation a case of cortical epilepsy in a boy who, during infancy, had convulsions from whooping cough or measles. He had a very severe convulsion, lasting several hours, and was given up for dead at the time, and various means were used to bring him to. Finally he recovered, but he was paralyzed on the right side, and had lost the power of speech; the child was then only a year old. He gradually regained the power of speech, though he does not speak perfectly now, and he regained the use of his limbs so that he can walk around very well; the arm is the weakest part. Several weeks after this first convulsion he had another, and these convulsions have recurred ever since about once a month. A year ago he had a severe fall, and was again unconscious for several hours, after which the attacks came on more frequently—as often as twice a month, and occasionally he has what is called a status epilepticus, in which he has a half dozen or sometimes a dozen of these convulsions successively without recovering consciousness. After each convulsion the paralysis is increased; during the intervals between the attacks he partially recovers the power of speech,

which is for a time after the convulsion lost—sometimes as long as an hour or several hours, but he gradually recovers that power. In this case he generally feels the convulsion coming on; he has no distinct intimation, but has sufficient time to protect himself or lie down. In some of his convulsions he falls down suddenly. In his case the lesion is undoubtedly cortical, and the prognosis is unfavorable.

*Dr. Dean* said it had always seemed to him since reading *Dr. Jackson's* writings and those of others who agree with him in many of his views on epilepsy, that those who maintain that the distinctive element in epilepsy is unconsciousness are defective in their reasoning. As the doctor stated to night, when asked if he would rule out those cases in which there is not loss of consciousness, it will usually appear in some of the attacks. If a patient may have a number of attacks and the loss of consciousness appear only in one, I think we have good reason to believe that all the attacks, whether one or a hundred, were epileptic; and again there are cases in which observers know that the patient has been conscious during the entire attack.

*Dr. Hermann* asked *Dr. Bremer* if he thinks it possible to cure epilepsy by removing the ovaries.

*Dr. Bremer* said he had never seen a case and never had heard of one where the removal of the ovaries effected a permanent cure. All the reputed cures by such means have to be looked upon with the utmost suspicion and reserve. As a rule, it will be found in such cases, where there is an ovarian complication followed by epilepsy, that there is also a history of heredity in some shape or other. Of course this does not imply that the parents or relatives were epileptics. They may have been of the neurotic temperament in general; for instance, they may have been subject to sick-headaches. The parent suffering persistent sick-headache will very frequently have offspring with epilepsy. After the removal of the ovary it is generally another organ from which the irritation starts, frequently from the stomach. He had very little confidence in operative procedures or in any other remedies for these cases.

*Dr. Bremer* said the cases that come to the specialist are desperate ones; as a rule the general practitioner had given the bromides which are specifics in so far at least as they alleviate the symptoms, retard the attacks, and make the intervals longer, but almost invariably at the expense of much vital force, with the ex-

ception, perhaps, of children, who generally take the bromides best. Women, for instance, when the attacks are stopped, will complain of a dulness of intellect and of a sense as if they were going to be crazy. He had even gone so far as to stop the use of the bromides and allow the attacks to come on again in order that they might feel relieved, as they did; they felt happier and better after the attack.

The question has been raised whether there can be an epileptic attack and the patient not lose consciousness. In syphilitic epilepsy, in the mild attacks, the patient is conscious during the whole attack. How are you going to determine that this is epilepsy? In the first place by the previous history of syphilis, and in the second place by the occurrence of the attack. We can not say when there is a monospasm of the muscles that it is epilepsy, but when we have a typical attack, then we say that was an attack of epilepsy.

As to the differential diagnosis between hystero-epilepsy and idiopathic epilepsy, Charcot, who was certainly one of the shrewdest observers of this disease, used to put it this way: if the case is benefited by the administration of bromides it is idiopathic; if he is not so benefited, in all probability it is hystero-epilepsy. He says another practical differential point is this: In hystero-epilepsy if apomorphine or muriate of apomorphine are administered in one-twelfth of a grain doses, in three minutes after a hypodermic injection the twitchings will cease, and a few minutes after the patient will vomit, and perhaps a quarter of an hour later he will be conscious. He himself had not treated enough of these cases to say that this is a practical differential point, but Charcot says so.

*Dr. Engelmann* had treated two patients who had had epilepsy or epileptiform attacks for years, and also pelvic disease. The bromides rendered the attacks lighter, but only checked them temporarily—stayed them for weeks and months, perhaps, but when an attack did come on, it came more severely. He gave no constitutional treatment whatsoever, in order to make a clear test case. Under the local treatment the attacks appeared considerably lighter, but did not disappear, and they gradually returned.

*Dr. Willis Hall* said *Dr. Bremer's* mention of apomorphia recalled two cases that appeared to be genuine epilepsy in which he used apomorphine, and they were relieved in about three minutes after the hypodermic injections. The patients were both laborers,



and they seemed to have been drinking. Thinking that perhaps the convulsions were due to something which had been taken into the stomach, he administered one-twelfth of a grain of apomorphia. He did not know that the patients were subject to epilepsy, but subsequently learned that they were subject to regular epileptic seizures at intervals of a day or two. One of the cases came into the hospital during the time before Dr. Dean took charge. The other patient was seen by an assistant who saw the first case; the patient was relieved in the second case just as promptly as in the first by the use of apomorphine. He would like to know what effect the indulgence in liquor might have had on these cases. The administration of the drug did not produce emesis at all, but the paroxysm was arrested in a very few minutes in both cases.

*Dr. Frank Glasgow* reported a case in which at about the same time every night a man would have a violent attack of coughing, would spring out of bed and fall unconscious on the floor. At the time he suspected that it was an attack of spasm of the glottis, but could get no history of that trouble. This was the only instance of this kind that he had even seen. Instances are given in the literature of what is called vertigo from a disease of the larynx, but this presents certain aspects that are different from those met with in these cases.

*Dr. Bremer*, in answer to the question as to what effect whiskey has on epilepsy said that whiskey is one of the great promoters of epilepsy. Persons of an epileptic disposition can bring on a fit very easily by going on a spree. The value of the apomorphine can only be determined in the staticus epilepticus. In a common case of epilepsy the probability is that the fit will end in perhaps five, ten or fifteen minutes, but where there is a real status epilepticus, lasting perhaps an hour, two hours, a day, three days, it is there that the great benefit of apomorphine would come in. But as a rule in true epilepsy we do not get very far with the apomorphine.

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Stated Meeting, May 3, 1887, Dr. Frank Glasgow in the chair.

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#### CEREBRAL THROMBOSIS.

*Dr. Frank R. Fry* presented a specimen of a portion of the brain, showing a thrombus at the point of division of the internal

carotid artery on both sides—much larger on the left. Besides these thrombi in the arteries there was a large thrombus of the superior longitudinal sinus. The centre of this latter thrombus was right where the veins running up from the ascending frontal and ascending parietal convolutions empty into the sinus; and the portions of the brain that were drained by these veins on the left side showed evident changes, softening, etc. On account of the thrombus of the left middle cerebral artery there were lesions with softening in the anterior lobe, particularly in the vicinity of the island of Reil and Broca's convolution. The patient had symptoms that were referable to these two localities and suggesting a lesion somewhere in the course of the nerve fasciculi traveling from these centres. During the patient's life Dr. Fry was of the opinion that there had been a hemorrhage or a single lesion of some sort extensive enough to explain the right hemiplegia, aphasia and mental disturbance from which the patient suffered. The post-mortem showed that the hemiplegia of the right side was due to a disturbance in the ascending frontal and ascending parietal convolutions, whilst the aphasic symptoms which were pronounced were due to trouble in the middle cerebral artery. The origin of the trouble was probably syphilitic.

The patient saw and heard well; and up to a day or so before he died he showed a considerable degree of intelligence; but there was complete aphasia; he could not talk at all, and he could not write. He attempted to write, but he failed to do so. Another interesting fact was that the facial muscles were not at all involved. The intensity of the lesion was at the upper extremity of the fissure of Rolando, shading off towards the lower extremity. The centres governing the muscles of the lower portion of the face being toward the lower extremity of the ascending frontal convolutions were not disturbed. The post-mortem bears out the prevalent theories about the psycho-motor centres.

*Dr. Frank Glasgow* asked whether it was right or left hemiplegia and how long before the man died the hemiplegia appeared, and how Dr. Fry could explain the fact that the thrombus in the vein did not cause any septic condition there?

*Dr. Fry* said he did not know how to explain it. He thought that all the lesions were due to syphilis. He had not yet had time to examine the inside of the sinus after splitting it open, but there were meningeal adhesions along the sinuses and little cheesy de-

posits. There was a pretty clear history of syphilis. It was right hemiplegia. One remarkable thing was that the cerebral veins on the left side were a good deal more plugged than on the right. The intensity of the disturbance was upon the left side—the ascending frontal and ascending parietal convolutions in their upper portions.

*Dr. Hulbert* asked whether the thickening of the arterial coat was not typical of syphilis; if that was not what we call syphilitic arteritis?

*Dr. Fry* said he did not know whether it was typical; but we know that syphilis is by far the most frequent cause of it; and when we find it, we feel almost certain of syphilis. He had made post mortems in many cases, and he had never seen that condition or a condition that he supposed to be that except in syphilitic subjects.

#### CEREBRAL SYPHILIS.

*Dr. Hulbert* said this specimen called to mind a post mortem made on a patient that died at the Female Hospital in which the same state of affairs was found, only more extensive. He knew that patient had syphilis. In tracing back the history of the case the first mention of the primary lesion occurred in 1873 when she was in the hospital being treated for it. She had been back since some seven or eight different times to be treated for ulcers of the leg, ulcers of the scalp, and rheumatism, mucous patches, and at one time a diagnosis of gummata was made. His own first acquaintance with her was in April, 1886, when she was admitted to the hospital for right hemiplegia involving the face as well as the body and extremities. It was considered due to a syphilitic lesion; and she was placed upon specific treatment. There was some defect in speech at that time, but it gradually improved, so that she was able to converse with only slight hesitancy. She regained the use of her arm and limb to the extent of being able to walk with only a slight difficulty. She came back to the hospital the last time about five months ago suffering with rheumatism and some aggravation of the hemiplegic symptoms. She was then about thirty years old. Three days before her death, which happened about two months, the doctor was suddenly called into the ward, and the nurse told him that the patient had had a faintness, as she expressed it, and was immediately placed in bed. He found de-



cided increase of the aphasia and some impairment of movement of the left side, but no marked change as regards the right side. She complained of having had a headache for two or three days before this attack came on.

Notwithstanding the fact that she was placed on large doses of iodide of potassium a few days before her death, at about five o'clock in the afternoon she had another one of these attacks of faintness, as she expressed it. She became completely aphasic; the left side was absolutely paralyzed; the muscles of the face on the left side were not affected. She made no progress towards improvement, became worse, finally became comatose and died.

At the post-mortem the cord did not reveal any lesions, but the brain presented a beautiful specimen of syphilitic condition, as there was a thrombus of both the internal carotids before they branched. The entire basilar artery was simply a hard cord, pale in color, and only a very small silver probe would pass through. The middle cerebral arteries on both sides to their minutest ramifications were involved, but in places, instead of being uniformly thickened like the basilar artery, there were nodules. These changes had taken place in the posterior communicating branches of the circle of Willis. I think the anterior branches were also involved. On the right side, apparently at the termination of the lower edge of the second frontal convolutions, there was a spot about the size of a silver quarter that had undergone induration and become perfectly white. This was the only change, as far as the cerebral substance itself was concerned, that was found. The brain substance seemed to be very firm. A stream of water did not cause it to disintegrate; it seemed to be even abnormally hard all the way through. The pia mater was adherent in a great many places over the surface of the brain, and the dura mater was adherent in several places to the pia mater; along the longitudinal sinus, extending from half an inch to an inch in different places, the dura mater was intimately adherent to the pia mater. It was very much thickened. This patient at times had taken as high as two drams of iodide of potassium which seemed to be sufficient to control her symptoms, and before the first attack that she had the last time she was in the hospital, the treatment had to be abandoned on account of its toxic influence. After a time she was again placed on constitutional treatment and at the time of the last attack she was taking about 45 grains of the iodide of

potassium three times a day. There was no rupture of the blood vessels in the brain and no evidence of any cerebral hemorrhage; the trouble seemed to be due to the formation of these thrombi, which seemed to shut off the circulation from the balance of the brain, especially of the portion supplied by the middle cerebral artery.

#### APOPLEXY.

*Dr. F. A. Glasgow* related two cases now under his charge, both giving indications of apoplexy, but without any sudden stroke. In one case the patient says she fell, but not suddenly enough to hurt herself, and was able to crawl to the bed and get on it; she was never unconscious. She was brought to the hospital three or four days after the occurrence, and was completely paralyzed in the right leg; there was a trace of motion in the right arm, but she was barely able to move it. Inside of one week the patient could walk about the room; inside of two weeks she was able to walk pretty nearly as well as she could before; then she improved right along; the speech was somewhat affected when she came in. She went home apparently well after being in the hospital several weeks; then she returned with an increasing weakness of the right leg and arm and a defect in speech, and this has gone on increasing gradually until although she can walk now, still the right leg and arm are very weak. There is not complete aphasia, but speech is very much interfered with, and that varies from day to day. Some days you can understand her; some days you cannot. When she first came in there was no deviation of the tongue. Now there is very decided deviation of the tongue to the left, and although her mental faculties seem to be good, she is unable to express her ideas in speech very fluently. That is the condition of the case now.

The history of the other case was related by her husband, a very intelligent man, to *Dr. Glasgow* who had her under observation three years ago in the hospital with an intense pain in the left side of the head, hemicrania over the left parietal bone, and ptosis of the left lid; otherwise there were no symptoms of paralysis. She apparently recovered and went home, the ptosis having almost entirely disappeared. Last summer, her husband states, she was out in the field at work in the hot sun, and was taken with tonic spasm of the extremities, and was laid up in bed; and although

never unconscious, she remained in bed a week or so, when she got up. Then her left leg was almost useless, so that she could not walk; this passed off in the course of about six weeks entirely, although he thought her mind was a little affected; then she had an attack of fever, as she says; and was laid up about the same length of time again, never losing consciousness, and when she recovered from that attack she was completely paralyzed on the right side and is so now; there is barely a trace of motion in the flexors and extensors of the right thigh; in the right arm there is very slight motion, and there is ptosis of the left lid. There is no deviation of the tongue, but the paralysis is complete. There has never been any history of unconsciousness in this case. She is not an hysterical patient, and has no nervous symptoms except a jerking when the foot is rested in a certain position.

*Dr. Fry* remembered reading some time ago an article in the *Journal of the American Medical Association*, a record of a number of cases of transient paralysis of one sort and another from a profound hemiplegia to monoplegias affecting small groups of muscles, and the author explained them on the theory of congestion. That, possibly, would be an explanation of *Dr. Glasgow's* case. The paralysis which remained permanent in one case might be explained by the supposition of a permanent lesion following what at first were merely congestive troubles.

*Dr. Glasgow* asked *Dr. Fry* if there can be a thrombosis sufficient to cause softening and secondary paralysis following it without having had unconsciousness preceding it?

*Dr. Fry* thought that that would depend upon the locality of the thrombus and the rapidity with which it grew. In the case that he had reported he believed that there was a passive congestion resulting from the plugging of the cerebral veins, that the results of this congestion were limited at first to the vaso-motor areas and that this is the reason they did not have unconsciousness, etc., sooner.

*Dr. T. F. Prewitt* asked if it is not true that with embolism we have a sudden falling of the patient, perhaps a paralysis without loss of consciousness; is that not one of the characteristic features of embolism in contradistinction to other forms of paralysis, as that which follows softening of the brain or edema or something of that kind; would it not be accompanied by loss of consciousness?



*Dr. Fry*, in answer to *Dr. Glasgow's* question, said he took it for granted that he had in mind a large thrombus that might come from phlebitis or something of that kind that clogs the circulation of a large area of the brain. Of course, we may have a small thrombus that does not interfere with a wide extent of circulation and have circumscribed lesions that would produce paralysis.

*Dr. Fry* read a paper on

FLEXIBILITY OF THE METACARPO-PHALANGEAL JOINT OF THE THUMB.

(Vide July COURIER, p. 8.)

*Dr. Leete* asked if the doctor had taken into account the percentage of thumbs that in early childhood are subjected not merely to one sprain, but to repeated sprains, resulting not only in a limited flexibility of the thumb, but frequently in very decided enlargement of the joint: that is, particularly thumbs of the right hand.

*Dr. Mulhall* asked if the flexor longus pollicis is absolutely peculiar to man.

*Dr. Fry* said he would not be sure of that but thought that it is, because it is absent in the anthropoid apes or the higher monkeys.

*Dr. Todd* was inclined to think he had found that muscle in monkeys.

*Dr. Fry* answered *Dr. Leete*, that while the pathological phenomena, that he suggested might possibly explain some of these cases, he did not believe it would explain the large majority of them. An examination of any number of hands would readily show the very great difference in the flexibility of the joints, without reference to age or sex.

*Dr. Leete* asked if he had observed that in some the flexibility of the right and left thumb is not equal?

*Dr. Fry* said that there is some difference, and yet not a great deal, generally. There are some instances in which the left thumb is a good deal more flexible than the right, and *vice versa*.

*Dr. Gregory* remarked that the extensibility of the first phalanx had attracted his attention. He had seen men who could make a complete circle with the thumb.

*Dr. Fry* said he had seen several instances in which thumbs that could be thrown back in that way, voluntarily or passively extended to a great extent, could not be flexed much.

*Dr. Todd* considered the thumb a very interesting subject. He thought the point that *Dr. Fry* had brought up in regard to studying the hand with a view of considering the occupation which an individual is fitted for is a very important thing to bear in mind. A person with a very short thumb would not be likely to make a successful machinist or artist; the flexibility necessary for these occupations is not found in the short thumb. The thumb has not less than nine muscles attached to it; it has three segments; the metacarpal and phalangeal portions have special flexors and extensors; a number of these muscles are inserted in the proximal phalanges at the base which *Dr. Fry* has been describing, and the short flexor in the sesamoid bone on the other side; and that sesamoid bone must cut some figure in the flexibility of the joint. In fact, *Dr. Humphrey* has called attention to the action of this sesamoid bone in dislocation of the thumb backwards. In such cases abduction is impossible from the fact that the little sesamoid will be back between the head of the metacarpal bone and the phalanx; and he makes the suggestion that an incision be made and the joint got into position that way.

*Dr. Fry.*—I took the liberty of asking *Dr. Neuhoff*, who assisted in making these examinations, to be present to night, and I would like very much to have him say something on the subject.

*Dr. Neuhoff* said that at the time he made these observations he did not know the purpose for which *Dr. Fry* wanted them, so that he had no particular theory in mind. He noticed only one remarkable fact and that was that the flexibility of the joints in negroes is very much greater than in those of the Caucasian race. In his examinations he did not find any negroes who could not flex their thumbs at least passing over 90 degrees. *Dr. Fry* said in his paper that there was no distinction between the races; it may be that further observation did not establish the point, but in the few negroes that he himself examined he found both joints of the thumb and those of the hand to be more flexible than in the white race. In respect to a question asked by one of the gentlemen about malformations of the joint due to injury and consequent diminished flexibility, he thought that would generally appear by looking at the two hands and comparing the joints, that no error would arise on that score. He generally examined both hands and noticed if there was any difference. It rarely amounted to anything. The flexibility of the thumbs of both hands was usually about the same.

*Dr. Bremer* said if it was a fact that the thumbs of negroes are more flexible than those of whites, he thought it safe to say that the more flexible the thumb the nearer is the approach to the monkey. He did not believe that a flexible thumb is any positive sign of dexterity of the hand. If he was not mistaken—anthropoid monkeys have more flexible thumbs than man; and the anthropoid monkeys are also distinguished by the fact that they have a very flexible back, so that they are far ahead of us in that respect. All this of course with reference to the theory of evolution.

*Dr. Leete* asked *Dr. Neuhoff* to look at his hands and tell which one had the thumb sprained.

*Dr. Neuhoff* made the examination and gave his opinion.

*Dr. Leete*<sup>1</sup> said he asked the doctor to make the examination because he was satisfied it was impossible to tell, and the doctor had selected the wrong thumb, the other thumb having been severely sprained in his youth, the injury having been so great that he could not make such use of this thumb as other boys did, and only a few years ago he attempted to shoot a marble with the thumb and found that it was painful. This indicated the difficulty in determining the existence of injuries about the thumb joint which must influence to some extent its flexibility.

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<sup>1</sup> *Dr. Fry* informs the editor that after the society adjourned *Dr. Leete* was convinced that his injured thumb was the more flexible.

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OPIMUM POISONING.—*Dr. Geo. M. Morse* reports a case of attempted suicide in which a man, æt. 32, took the contents of an one-eighth-ounce vial of morphine dissolved in about twelve ounces of water of which he vomited about two ounces. The doctor estimated that the quantity he retained was over forty grains. This remained for some thirteen hours when the contents of the stomach were removed by a stomach pump. The stomach was then washed out thoroughly by pumping in clear water and removing it, and finally a pint of strong black coffee was introduced in the same way. Persistent use of galvanism, flagellation and the hypodermic injection of atropia and later the administration of caffeine were successful in restoring the patient to life. Hence the author concludes, no matter how desperate the case, persistent efforts to relieve the patient should be continued so long as respiration can be kept up by the uses of flagellation and galvanism.—*Bost. M. and S. Jour.*, June, 23.



## SELECTIONS.

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### THE NEW ILLINOIS MEDICAL PRACTICE LAW.

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The following is the full text of the act passed in the closing hours of the last Illinois legislature.

SECTION 1. *Be it enacted by the People of the State of Illinois, represented in the General Assembly,* That no person shall practise medicine in any of its departments in this state unless such person possess the qualifications required by this act. If a graduate in medicine, he shall present his diploma to the State Board of Health for verification as to its genuineness. If the diploma is found genuine, and from a legally chartered medical institution in good standing, and if the person named therein be the person claiming and presenting the same, the State Board of Health shall issue its certificate to that effect signed by all of the members thereof, and such certificate shall be conclusive as to the right of the lawful holder of the same to practise medicine in this state. If not a graduate, the person practising medicine in this state shall present himself before said board and submit himself to such examination as the board may require, and if the examination be satisfactory to the board, the said board shall issue its certificate in accordance with the facts, and the lawful holder of such certificate shall be entitled to all the rights and privileges herein mentioned.

Sec. 2. The State Board of Health shall organize within three months after the passage of this act, it shall procure a seal, and shall receive through its secretary, applications for certificates and examinations; the president and secretary shall have authority to administer oaths, and the board to take testimony in all matters relating to its duties; it shall issue certificates to all who furnish satisfactory proof of having received diplomas or licenses from legally chartered medical institutions in good standing as may be determined by the board; it shall prepare three forms of certificates, one for persons in possession of such diplomas or licenses, the sec-

ond for candidates examined and favorably passed on by the board, and a third for persons to whom certificates may be issued as hereinafter provided in section 12 of this act; it shall furnish to the county clerks of the several counties a list of all persons receiving certificates. In selecting places to hold its meetings, it shall, as far as is reasonable, accommodate applicants residing in different sections of the state, and due notice shall be published of all of its meetings for examination. Certificates shall be signed by all the members of the board, and the secretary of the board shall receive from the applicant a fee of five (5) dollars for each certificate issued to such graduate or licentiate; graduates or licentiates in midwifery to pay the sum of two (2) dollars for each certificate. All such fees for certificates shall be paid by the secretary into the treasury of the board.

Sec. 3. The verification of the diploma shall consist in the affidavit of the holder and applicant that he is the lawful possessor of the same and that he is the person therein named. Such affidavit may be taken before any person authorized to administer oaths, and the same shall be attested under the hand and official seal of such officer, if he have a seal; and any person swearing falsely shall be deemed guilty of perjury, and punished accordingly. Graduates may present their diplomas and affidavits as provided in this act, by letter or by proxy, and the State Board of Health shall issue its certificate the same as though the owner of the diploma was present.

Sec. 4. All examinations of persons not graduates or licentiates, shall be made directly by the board, and the certificates given by the board shall authorize the possessor to practise medicine and surgery in the State of Illinois.

Sec. 5. Every person holding a certificate from the State Board of Health shall have it recorded in the office of the clerk of the county in which he resides, within three months from its date, and the date of recording shall be endorsed thereon. Until such certificate is recorded as herein provided, the holder thereof shall not exercise any of the rights or privileges conferred therein to practise medicine. Any person removing to another county to practise shall record the certificate in like manner, in the county to which he removes, and the holder of the certificate shall pay to the county clerk the usual fees for making the record.

Sec. 6. The county clerk shall keep, in a book provided for the

purpose, a complete list of the certificates recorded by him, with the date of the issue of the certificate. If the certificate be based on a diploma or license, he shall record the name of the medical institution conferring it, and the date when conferred. The register of the county clerk shall be open to public inspection during business hours.

Sec. 7. The fees for the examination of non graduates shall be as follows: Twenty (20) dollars for an examination in medicine and surgery; ten (10) dollars for an examination in midwifery only; and said fees shall be paid into the treasury of the board. If an applicant fails to pass said examination his or her fee shall be returned. Upon successfully passing the examination the certificate of the board shall be issued to the applicant without further charge.

Sec. 8. Examinations shall be made in whole or in part in writing, and shall be of an elementary and practical character, but sufficiently strict to test the qualifications of the candidate as a practitioner.

Sec. 9. The State Board of Health may refuse to issue the certificates provided for in section 2 to individuals guilty of unprofessional or dishonorable conduct, and it may revoke such certificates for like causes. In all cases of refusal or revocation the applicant may appeal to the Governor, who may affirm or overrule the decision of the board, and this decision shall be final.

Sec. 10. Any person may be regarded as practising medicine, within the meaning of this act, who shall treat, operate on, or prescribe for any physical ailment of another afflicted. But nothing in this act shall be construed to prohibit service in cases of emergency or the domestic administration of family remedies. And this act shall not apply to commissioned surgeons of the United States Army, Navy, or Marine Hospital Service in the discharge of their official duties.

Sec. 11. Any itinerant vendor of any drug, nostrum, ointment or appliance of any kind, intended for the treatment of disease or injury, or who shall, by writing or printing or any other method, profess to cure or treat disease or deformity, by any drug, nostrum, manipulation or other expedient, shall pay a license of one hundred (100) per month into the treasury of the board, to be collected by the State Board of Health, in the name of the People of the State of Illinois for the use of said Board of Health. And it shall be lawful for the State Board of Health to issue such license on applica-



tion made to the State Board of Health, such license to be signed by the President of the Board, and attested by the Secretary of the Board. Any such itinerant vendor who shall vend or sell any such drug, nostrum, ointment or appliance without having a license so to do, shall, if found guilty, be fined in any sum not less than one hundred dollars, and not exceeding two hundred dollars for each offense, to be recovered in an action of debt before any court of competent jurisdiction. But such board may for sufficient cause refuse such license.

Sec. 12. Any person practising medicine or surgery in the state without the certificate issued by this board in compliance with the provisions of this act, shall for each and every instance of such practice forfeit and pay to the people of the State of Illinois for the use of said State Board of Health the sum of one hundred (100) dollars for the first offense, and two hundred (200) dollars for each subsequent offense, the same to be recovered in an action of debt before any court of competent jurisdiction, and any person filing or attempting to file as his own the diploma or certificate of another, or a forged affidavit of identification, shall be guilty of a felony, and upon conviction, shall be subject to such fine and imprisonment as are made and provided by the statutes of the state for the crime of forgery: *Provided*, that all persons who have been practising medicine continuously for ten years within this state prior to the taking effect of the act to which this is an amendment, and who have not under said original act obtained a certificate from said Board of Health to practise medicine in this State, shall, upon proper application to said Board of Health, receive such certificate, unless it shall be ascertained and determined by said Board of Health that the person so applying for a certificate is of immoral character, or guilty of unprofessional or dishonorable conduct, in which case said Board of Health may reject such application: *And, provided*, that such application for a certificate shall be made within six months after the taking effect of this act, and all persons holding a certificate on account of ten years' practice shall be subject to all the requirements and discipline of this act, and the act to which this is an amendment, in regard to their future conduct in the practise of medicine the same as all other persons holding certificates, and all persons not having applied for or received such certificate within six months after the taking effect of this act, and all persons whose applications have for the causes herein

named been rejected or certificates revoked, shall, if they shall practise medicine, be deemed guilty of practising in violation of law, and shall suffer the penalties herein provided.

Sec. 13. Upon conviction of either of the offenses mentioned in this act, the court shall, as part of the judgment, order that the defendant be committed to the common jail of the county until the fine and costs are paid, and upon failure to pay the same immediately, the defendant shall be committed under said order. *Provided*, that either party may appeal in the same time and manner as appeals may be taken in other cases, except that where an appeal is prayed in behalf of the people, no appeal bond shall be required to be filed, whether the appeal be from a justice of the peace, or from the county or circuit court, or from the appellate court. But it shall be sufficient, in behalf of the people of the State of Illinois, for the use of the State Board of Health, to pray an appeal, and thereupon appeal may be had without bond or security.

Sec. 14. All acts and parts of acts inconsistent or in conflict with this act, are hereby repealed.

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## THE PROPER EMPLOYMENT OF PREPARED FOODS FOR INFANTS.

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BY VICTOR C. VAUGHAN, M. D., PH. D. *Professor of Physiological  
Chemistry in the University of Michigan.*

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The feeding of infants which for any reason are denied the mother's breast, has been, and continues to be a question of great interest. Even the matter of the selection of a wet-nurse, where both money and opportunity are abundant, is one of the greatest importance, and, as all know, this method of securing nourishment for the child is not free from danger. First, there is often the dread that the nurse will convey to the child some constitutional disease. Then the nurse can hardly be excepted to have that watchful solicitude for the child's health which is the peculiar characteristic of its own mother; and the most trusted servants have been found quieting the baby with opiates and even narcotizing it with alcohol. Again, the nurse who offers herself only on account of the demands of poverty, must often leave her own child to be fed artificially, and the question of the importance of infant

feeding is only transferred in its application from the child of the mistress to that of the servant. Lastly, in a large number of cases, from want of a wet-nurse, obtainable at any price, or from want of money, the child must be fed artificially.

When the artificial feeding becomes necessary, of what shall the food consist? In this country, at least, we cannot obtain the milk of the ass or even that of the goat, in quantities sufficient to be used by many. I think that all will agree that cow's milk must continue to be the chief source of nourishment for children, and in a recent article in this journal<sup>1</sup> I endeavored to formulate certain rules for the better care of milk. As soon as the consumer demands it, the dealer in milk will conform to those or similar rules. The result of the application of the rules will not be to injure the trade of the dairyman: but the reverse will be true, inasmuch as his milk will be greatly improved in quality and will command a better price.

In the article referred to I urged that no milk should be given to the child sick with cholera infantum or other summer diarrheas. This prohibition applies to all prepared foods containing milk or to which milk must be added. Recently I obtained all the infant foods I could find in the market, prepared them according to the directions accompanying them, placed them in four ounce bottles making a duplicate test for each food, added some of the ferment which, I had found would produce tyrotoxin in milk, and kept the tightly stoppered bottles at a temperature of 38° C. for six hours, then tested the contents of each bottle for the poison, and found it present in every one of them. It should be clearly understood here that the poisonous ferment was added to the foods.

This experiment fulfils the conditions which would exist were a child sick with cholera infantum to be fed with one of these foods; provided always, of course, that my theory as to the causation of this and kindred diseases in children is true. Some preparations of peptonoids and peptones treated in the same manner as the infant foods, failed to develop the poison, at least, in quantities sufficient to be recognized by any chemical test. I may add here, that a similar experiment was made with milk which had been boiled, and in this also the poison was developed. But in the boiled milk

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<sup>1</sup>*The Medical News*, June 18, 1887.



to which no ferment was added, as well as in the unboiled milk to which no ferment was added, the poison did not appear, at least within the six hours.

Now, from these experiments I conclude that foods prepared from milk or to which milk must be added, are not suitable for children who are suffering from the summer diarrheas. Just why the poison should appear in the milk preparations and not in the peptonoids, I cannot say. There are several possible explanations. The growth of the germ may simply be more rapid in one than in the other, and the difference in the development may be only one of time; but a difference of this kind is sufficient for all practical purposes.

Then have the prepared milk foods no legitimate use? I think they have, and desire to point out what I consider to be their proper employment.

Even under the most favorable conditions milk can be kept unchanged only for a short time in summer. There is the same reason for the drying of milk and the preservation of its solids that there is for the curing of meat or the canning of fruit. The dried milk solids may be transported any distance and kept for any reasonable length of time, if properly prepared, without undergoing putrefactive changes. But they are to be used with children free from the summer diarrheas rather than with those suffering from those complaints. Where the source of the milk supply is doubtful, a properly prepared milk food would be much more reliable than the raw milk. Besides, with any dilution or addition that may be made, cow's milk cannot be rendered identical with the milk of woman.

Can the milk of the cow be rendered more nearly identical with that of woman than it is by the simple dilution with water and the addition of milk sugar? All chemists, I think, agree that woman's milk contains more peptone than does the milk of the cow. Kirchner, who has given much attention to this subject, and has experimented largely, believes that the difference in the digestibility of milk from the cow and that from woman, is wholly due to the larger amount of peptone in the latter.<sup>1</sup> I cannot see, therefore,

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<sup>1</sup> *Beitrage Zur Kenntniss der Kuhmilch und ihre Bestandtheile*, S. 42 et seq.

why the casein of the cow's milk should not be partially digested. That it should not be completely digested, I think there can be no question. It is certainly unscientific to feed any one for any length of time upon peptones altogether; especially is this true of children. To relieve the gastric juice altogether is to diminish its secretion. The muscle of the arm, the brain, and, indeed, every part of the body, is weakened by inactivity. The stomach can be no exception to this rule. It must have something to do, or it will soon be unable to do anything. There may be, and doubtless are, exceptional cases, in which the temporary administration of peptones exclusively is desirable. But these are exceptional cases, and the administration of the completely digested food should be only temporary. Certainly these cases do not include healthy children. For these reasons I generally prefer the partially digested meat preparations to the peptones.

If this be true, will it not be sufficient for the nurse to digest partially the cow's milk as it is fed to the child? There are these objections to giving advice of this kind. 1. If the source of the milk is doubtful, or if it has become contaminated by unclean vessels, or if putrefactive changes have already begun in it, the process of artificial digestion will not destroy the poisonous ferment. Indeed, the temperature at which the milk is kept during the artificial digestion will only favor the development of the poison. We have Dr. Holt's evidence that the use of peptonized milk is not to be recommended in summer diarrheas.<sup>1</sup> The artificial digestion, as carried out by the nurse, is not likely to be scientifically done. It will probably be neglected or amount to only a form, or it may be overdone and the taste of the milk spoiled, and too great a proportion of the casein converted into peptone. If partial artificial digestion is to be practised at all, and I see no reason why it should not be, it should be done under competent direction and when the milk is perfectly fresh.

Let us see what some of the most important properties of this prepared milk food should be. It should not contain any vegetable matter which is difficult of digestion.

This prepared milk food should be sufficiently nutritious in itself, and, consequently, should not require the addition of milk.

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<sup>1</sup> *New York Medical Journal*, January 29, 1887.

In the use of all those prepared foods to which the addition of milk is necessary, the same danger of introducing the poisonous ferment into the alimentary canal exists as in the use of the raw milk. Many of the prepared foods contain such small amount of proteids that the addition of milk becomes necessary. They should contain a larger per cent. of milk solids, obtained by the evaporation of milk in vacuo.

Attention should be given to the amount of inorganic salts, especially of lime and phosphoric acid, in a prepared food. A proper amount of these substances is as necessary to the health and growth of the child as are fats, proteids, and carbohydrates.

The carbohydrates present in such a food should not be in the form of grape sugar, but as milk sugar and dextrine. The grape-sugar is not supposed to have any specially injurious or poisonous properties; but it ferments too rapidly and for this reason is objectionable. By roasting wheat flour its starch is converted into dextrine, and this roasted flour mixed with milk solids, obtained by the evaporation of milk in vacuo, forms a food sufficiently nutritious, and one which may be kept indefinitely without putrefactive changes occurring in it.

Prof. J. Lewis Smith, in his excellent work on Diseases of Infancy and Childhood, speaks well of the roasted flour; and this, added to milk solids, makes the best infant food known to the writer.—*Medical News* July 2, 1887.

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## OBSERVATIONS ON THE SALICYL TREATMENT OF ACUTE RHEUMATISM.

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BY ALFRED H. CARTER, M. D. LONDON., *Physician to the Queen's  
Hospital, Birmingham.*

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Everyone who attempts to arrive at a definite verdict with regard to the efficacy of a medicinal remedy for a given disease must necessarily find himself confronted with difficulties of many kinds; difficulties in the accumulation of sufficient material; difficulties in securing uniformity of conditions; difficulties in connection with the ever-varying progress and development of the disorder under consideration; difficulties in grasping and apprecia-



ting properly a complex assemblage of symptoms; and, last but not least, difficulties in exhibiting that mental serenity, accuracy of perception, and judicial impartiality which alone can guide the observer to a right interpretation of his impressions.

With a full regard for these difficulties, I think that we are now, nevertheless, in a position to speak with very considerable confidence as to the merits of the salicyl compounds in the treatment of acute rheumatism. The method has been before the profession for upwards of ten years, and opportunities of observing its effects are almost of daily occurrence. Moreover, the tests of its action are exceptionally simple and clear, namely the relief of the pain, reduction of the fever, and the influence on the duration of the disease. There is almost a universal consensus of opinion that, judged by these tests, the treatment of acute rheumatism by the salicyl compounds is superior to any other method which has yet been introduced. As to relief of the pain and the reduction of fever there can be no question whatever; but as to the influence of the drug in shortening the duration of the rheumatic process, pure and simple, there is not as yet complete unanimity. For my own part I hold a very strong opinion in the negative as regards this last point.

At the same time, it is pretty generally admitted that the good effects of the drug are by no means equally manifested in all cases, and in some it appears to fail altogether. Some observers have been so impressed with the instances in which the action has been unsatisfactory that they have at once rashly concluded that the salicyl compounds are very much overrated drugs as remedies for this disorder, and that they cannot be relied upon. But bearing, in mind the marvellous relief which follows their use in the majority of cases, it would surely be more logical to attribute the disappointing results to the operation of some exceptional modifying condition, the nature of which should be carefully searched out, in the hope that we may be able to distinguish beforehand those cases in which the remedy will succeed from those in which it will fail. Inquiries are repeatedly being made in the columns of our medical journals for guiding indications in the use of salicyl compounds for this disorder, and the object of this paper is to attempt to define with sharper outlines and greater precision the relation and scope of this method of treatment, so far as my observations and experience enable me.

In the first place, it is important to frame a good working hypothesis as to the nature of the rheumatic process. I use the term "working hypothesis" advisedly, for the subject is too complex and difficult to admit of absolute demonstration in the present state of our knowledge; and it is thus quite scientific to accept that hypothesis which covers the largest number of known facts with regard to the matter under consideration. The prevailing views of the nature of the rheumatic process are four in number: 1. That it is due to the accumulation in the system of certain products of tissue-change—probably of an acid nature—by interference with their elimination as the result of cold; this is, broadly speaking the humoral theory. 2. That it is due to cold acting directly or indirectly upon the vaso-motor or trophic nerves of the joints, and so exciting inflammation in them; this is the neurosal theory. 3. That it is due to the operation of microbes, in a manner closely analogous to what occurs in malarial fevers; this is the miasmatic theory. 4. That, under the influence of cold, operating through the medium of the nervous system, a disturbance occurs in the metabolism of the tissues, leading to the formation and accumulation in the blood of abnormal substances, on which the outward manifestations of the disease depend; this may be termed the neuro-humoral theory, inasmuch as it combines elements of both the humoral and neurosal teaching. I assume that in all these theories, except perhaps the miasmatic, a special inherited predisposition would be regarded as a necessary factor in the evolution of the actual disease.

I shall refrain from enumerating the arguments for and against each of these views, and shall merely state that I give my adhesion unhesitatingly to the last, or neuro-humoral theory. I cannot pretend to say whether the incidence of the disturbing influence is general or partial in its distribution; but the important fact to remember, it seems to me, is that as a result of the nutritive disturbance, abnormal substances are formed and accumulate in the blood, and that to the secondary effects of this offending material most of the striking outward phenomena of rheumatic fever are due. Dr. Latham, in an extremely elaborate and able series of papers published in the *Journal* in April, 1886, brings forward very cogent evidence to show that glycocine is the most important of these abnormal substances; and I am convinced that, though he may be

in error on some points of detail, the principle is correct so far as one can test it by clinical observation.

I propose briefly to consider the bearing of this doctrine upon the joint affection, so far as may be necessary to elucidate the principles of treatment. The synovial sacs are known to be in direct communication with the vessels of the absorbent system, and it is a matter of general clinical experience that the joint cavities tend to become involved in serious toxic conditions of the blood, as in pyemia, for instance. The liability to joint-inflammation in rheumatic toxemia is, therefore, by no means surprising. The nature of the mischief which is set up is that of simple inflammation caused by irritation from abnormal chemical ingredients in the synovia or lymph-fluid which bathes the articular surface. It is identical in every respect with such inflammation as would be set up by the presence of any ordinary irritant in the joint-cavity. As a rule it is slight and fleeting, affecting the most superficial parts, and not extending to the cartilaginous and fibrous structure around. If, on the other hand, the irritation be very severe, frequently recurrent, or of long duration, then greater damage is inflicted upon the joint which undergoes more or less considerable structural change. We arrive then at the following conclusions: 1. That the joint-affection is merely an incident in the rheumatic disorder, which might conceivably be wanting altogether without vitiating the nature and reality of the rheumatic process; 2. That it is secondary in its origin; and 3. That the changes which take in the joint-structure have no special features belonging to them which serve to distinguish them from any other kind of simple arthritis.

The primary chemical change in the blood to which I have referred as the necessary etiological antecedent of the joint affection also leads to secondary changes in the blood itself, of which, perhaps, the most important is the rapid destruction of the red-corpuscles. By careful hemacytometric observations I have found that the proportion is often reduced to nearly a half of the normal amount, that the destruction continues until the temperature begins to fall, and then, after a variable interval, the number begins to increase again. No one can fail to have noted the rapid development of anemia in acute rheumatism and, the marked pallor, which, as a rule accompanies the chronic variety. The fact, how-



ever, is scarcely mentioned in most text-books, and yet it has an important bearing in many directions.

Apart from the anemia and the various troubles directly dependent on it, there are at least two phenomena on which this corpuscular destruction throws much light. First, the highly pigmented condition of the urine, which is due to the liberation of a large amount of hemoglobin; and, secondly, the excessive coagulability of the blood, which is due to the liberation of certain fibrin-factors. Moreover, such a destructive change as this must of necessity load the blood with extractive matters, and in many other ways, impossible to identify in detail, greatly disturbs its chemical composition—facts which taken together with the primary toxemia go far, in my opinion, to account for the occurrence of endocarditis, and possibly also the phenomena of hyperpyrexia. Interesting and suggestive as these pathological conditions are, I cannot now follow them further, but hasten again to take up the therapeutic thread which has been temporarily dropped.

The first question to be answered is this: On what principle do the salicyl compounds produce their effect? If it be true that there is nothing of a specific nature in the joint inflammation; if it be true that acute rheumatism is at bottom a metabolic disturbance attended with chemical alteration of the blood; and if it be true that the joint affection is but the direct outcome of chemical irritation, then it appears to me that there are only three possible hypotheses which can be suggested as to the way in which the remedy acts: 1. That the drug directly allays the joint inflammation; 2. That it strikes at the root of the morbid process as such; and 3. That it in some way neutralizes and prevents the chemical irritation of the joint. Now we do not find that the salicyl compounds have any influence on arthritis which is unconnected with rheumatism or the disorders allied to it, so I cannot accept the first view. Then against the next alternative, it seems that however much the drug relieves the pain and reduces the fever, the rheumatic condition returns immediately the remedy is suspended, a fact which irresistibly suggests the conclusion that the drug acts by checking the outward manifestations rather than by curing it at its seat of origin. We are thus driven by a process of exclusion to the third hypothesis, namely, that the salicylates act by neutralizing and preventing the chemical irritation of the joint. This, too, is the view which, as we shall find, covers known clinical facts best.

Dr. Latham, in the lectures already referred to, not only brings forward a mass of strong evidence in support of this doctrine, but is able to suggest the probable nature of the chemical action of the salicyl compounds. Without entering into clinical details with which his paper abounds, his view is that whatever salicyl compound is given, salicylic acid is set free in the system, which combines in the blood with glyocine and uric acid or their immediate antecedents, and so prevents all secondary manifestations traceable to this source.

We are now in a position to consider the circumstances under which these remedies are alleged to fail. Probably the most common source of failure consists in the faulty mode of administration. Either the drug is not given in sufficiently large doses nor at sufficiently short intervals. For a young adult, in a case of average severity, the dose should not be less than 20 grains, nor should the intervals between them exceed three hours. In cases of unusual severity, the dose should be repeated every two hours. Of course it is not necessary to maintain this high dosage. As soon as the symptoms begin to yield, the quantity should gradually be diminished. If the drug be pure we need not fear its toxic effects. When they occur they are seldom alarming, and in any case quickly disappear on reducing the dose or temporarily suspending the drug. There seems good reason for believing that toxic symptoms are less liable to occur when these compounds are derived from willow-bark than when (as is most usual) they are prepared synthetically.

Failure in many cases may be explained by the fact that inflammatory changes have been set up in the joint which are too severe and deep-seated to subside immediately on the removal of the primary irritation. The salicylates remove the latter, but have no direct influence over the inflammatory change of the joint. Thus we find that the salicyl compounds always answer best in the early stages of the disease, before the joint mischief has had time to make any headway. The longer the treatment is deferred after the invasion of the disease, the more disappointing are its results, other things being equal. Then, again, the treatment is always more satisfactory in the first attacks than in subsequent ones, and this in direct proportion to the frequency of the recurrence and the shortness of the intervals between consecutive attacks. Precisely similar arguments apply to cases of sub-acute and chronic rheuma-

tism. In these instances it is not that the salicylates act otherwise than in early acute attacks; but, while in the latter the joint-inflammation, though sharp is short, and quickly subsides on removal of the primary source of irritation, in the former, structural changes of an inflammatory origin have taken place which gives rise to persistent pain, beyond the reach of salicyl influence, requiring time and careful local treatment to regain their normal condition.

A third important source of alleged failure is to be found in the association with the rheumatic condition, of more or less grave deterioration of the general health, with nervous debility and depression. It will be more convenient, however, to defer the consideration of this matter until the question of relapse has been discussed. No more frequent charge is brought against the value of the salicylates as a remedy for rheumatism than the indubitable tendency for the symptoms to return as soon as the drug is suspended.

I would explain the relation of the salicyl treatment to relapses in the following way: The cases treated by the expectant method show clearly that acute rheumatism tends to subside spontaneously after an average duration of about three weeks. As a rule, the more frequently the attacks recur, the longer their average duration, until they merge into chronic rheumatism. Now, it has already been shown that the salicylate treatment has no direct effect on the rheumatic process, but produces its influence by chemically repressing or preventing some of its earliest secondary manifestations.

Accordingly, if the drug be suspended during the early days of the fever, relapse is practically certain; later on, relapse is less likely to occur, until at last, when the metabolic disorder which constitutes the essence of the rheumatic process has naturally subsided, relapses do not occur at all. Applying these facts to actual practice, it is necessary to continue the use of the drug, in reduced doses, for at least three weeks from the date of onset, and even then, on the slightest return of symptoms, to recommence its administration, and to continue it at least for another week or ten days. In this light, so far from the occurrence of relapses depreciating the practical value of the drug, they show up the specificity and certainty of its operation, within its own limits of activity, in a most striking manner.

To return to the influence of debility as accounting for failure of



the salicylates in certain cases. It is well known that a common cold lasts longer, and is thrown off with greater difficulty in proportion to the want of vigor and robustness in the person affected, other things being equal. It is precisely the same in acute rheumatism. In proportion as the patient is debilitated and in feeble general health at the onset of a rheumatic attack, the greater the difficulty in reacting from the disturbance which has been set up, the more tedious its progress, and the less complete the recovery. The rheumatic process once started in a weakly subject is certain to be much more protracted than usual, and sometimes exceedingly so. Hence it follows that, under these circumstances, the salicyl treatment would have to be continued much longer than usual, in order to prevent relapse. But there are practical difficulties in carrying this out owing to the toxic and debilitating effect of the drug when given in full doses, at short intervals, and for a long period. Thus, it can readily be seen why the results of salicyl treatment in such cases are so unsatisfactory. The dilemma is this; either the drug is suspended before the rheumatic process is over, in which case relapses will certainly occur, or it is continued so long as to depress the vitality of the patient, and make it almost impossible for him to throw off the disorder.

With reference to heart-complications, I believe that they occupy exactly the same secondary relation to the chemical changes in the blood as does the joint-affection. Consequently, in the same manner as the joint-inflammation can be prevented by early and vigorous salicyl treatment, so I believe that cardiac inflammation may be prevented. I have never yet seen cardiac complications occur after the first twenty-four hours of salicyl treatment in a case which was known to be uncomplicated at the outset, and in which it was clear, from the rapid diminution of the joint-pains and fever, that the patient was properly under the influence of the drug. When such complications occur during the first day of treatment, it is probable that the inflammation had already begun when the patient first came under observation; and, as with the joint-inflammation, the salicylates have no direct influence of any kind on the inflammatory mischief *per se*.

I venture to hope that these observations, if carefully followed up, will do some little to place one of the most valuable therapeutic discoveries of modern times on a more rational and solid found-

dation, and enable us to employ the method more intelligently and with greater promise of success.

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### SIGNS OF THE TIMES.

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We doubt not our readers will share the interest with which we read the paragraphs quoted below from two editorials in the July issue of *The New York Medical Times* the most progressive and ablest of the homeopathic journals.

"We have all along insisted that homeopathy was not a system of medicine, but an adjunct to therapeutics; that *similia similibus curantur* was one of the established truths of therapeutics, having a definite and pretty well defined sphere of usefulness in the treatment of disease; that it was not of universal application, and that to seek to make it so was a grievous error, unscientific, full of danger to the sick, and of discomfiture, if not ignominy, to the practitioner; that since it was demonstrable that the method of *similia* covered but a part of the field of practical medicine, it was an act of folly to insist that it covered the whole; that for this reason it was unwise and unprofitable, as well as unbecoming the dignity of a physician, to accept the titular distinction, homeopathic, or to impose such a narrow distinction upon practitioners of the New School, especially such as could lay just claim to the title of Doctor of Medicine; and that all medical colleges should be schools of medicine in the broadest sense wherein the whole truth of medicine is taught.

"We will not undertake to give our readers any idea of the manner in which these suggestions have been received by the medical press of the New School. To those who have watched the progress of the controversy it would be needless; by those who know the bitterness of sectarian rancor it may be imagined. The conduct of a wounded beast of prey when brought to bay is tame by the side of it! Among the most ultra of this class of journals has been our contemporary, *The Hahnemannian Monthly*. That journal was established in the interest of simon pure homeopathy. No devotee of that school has had reason to doubt its perfect loy-

alty. It has been servilely loyal to the tenets of its master, Hahnemann. We say it has been. We rejoice to be able to write that in the past tense. For some reason or other—we flatter ourselves that it is due to the influence of *The New York Medical Times*—the editor of *The Hahnemannian Monthly* has received a new inspiration. His idea of medicine has been broadened. To him homeopathy is no longer “a perfect system of medicine.” He sees that the duties and responsibilities of the physician are not bounded by the tenets and methods of Hahnemann. In an editorial for April, 1887, he makes bold to say, that ‘the time is probably not far distant when the American homeopathic profession will formally and publicly reassert its claim to the stewardship of medicine—of all medicine.’ And in the same connection the writer admits the utility of what he calls ‘non-homeopathic medication,’ and the necessity of its being taught in homeopathic colleges. ‘We must cultivate and occupy the whole field of medicine,’ he says; ‘and the restrictive sect which fences itself in a corner must bear the responsibility of its own misdoing.’

“The writer justly complains of the policy of teaching in homeopathic colleges which leaves the student to grope in the dark, ignorant of ‘the limits of homeopathic application.’ This is a grievous error on the part of any college claiming to teach the science and art of medicine, as *The Medical Times* has pointed out over and again. We cannot but rejoice that our suggestions have not been made in vain and that our colleague of the *Hahnemannian* has made bold to second them. We quote the following paragraph from his pen and give it, in conclusion, our hearty indorsement:

“Briefly, then, the homeopathic physician should be taught at college what homeopathy cannot do as carefully as he is instructed in what it can do. He should also be taught what allopathy can do, and just as thoroughly instructed as to what it cannot do. But especially should he be instructed with the utmost pains in those facts and principles which alone can be his guide and his justification when he is called upon to lay down his homeopathic medicine case and call in the aid of other measures, so that he may do it fearlessly in the sight of men and angels.” \* \* \*

“The term ‘allopathist’ originated with Hahnemann and has never been accepted by the school to which he applied it, and the term ‘regular’ has been used only to designate a class in comparison, and not as a ‘name to trade upon.’ The ‘regular’ physician



is one who is truly, or tries to be, eclectic in the proper sense of the word, but not one who adheres to the principles and practices of the Eclectic School of Medicine of to-day, which seems to be better styled as Botanic!

"We cannot point to a single medical college or society in the land which has an 'allopathic' pseudonym and the word 'regular' is made little use of and never as a part of a title or in a sectarian sense.

"We have always held that science knows no sect and cannot! We are not aware that the so-called homeopathists have done any work that could not have been just as well done in association with the great body of physicians, providing the basis was as above indicated.

"It is universally conceded that even in Christendom the world would be better without sects, and to that millennial day all Christians are earnestly looking! There are enough facts and principles upon which we can all agree, to occupy our time and attention without fighting over non-essentials, which are the points which cause ill-feeling, intolerance and engender bigotry.

"We know positively that there is a large and growing body who agree with us that it is best to discard the use of the pseudonym 'homeopathic' as far as possible, certainly as respects titles for societies, etc., and the time is not very far distant when it will be obsolete altogether.

"The time is surely coming when the selection of the dose will determine the principle for its use allopathically or homeopathically, as it may be required, and when all physicians recognize this fact, there will be no such thing as a sect, for all will be in substantial agreement, and neither party will have compromised a principle in accepting the new interpretation, and thus the reconciliation will be brought about with the humiliation of none! "

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THE AMERICAN PUBLIC HEALTH ASSOCIATION will hold its fifteenth annual meeting in Memphis, Nov. 8, 9, 10, and 11, 1887. The following are the subjects specially selected for consideration at that time: "The Pollution of Water Supplies;" "The Disposal of Refuse matter of Cities;" "The Disposal of Refuse matter of Villages, Summer Resorts and Tenements;" and "Animal Diseases Dangerous to Man."

## NOTES AND ITEMS.

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**SWILL MILK AND SWILL BEEF.**—The following summary of a report of a special committee of the New York Academy of Medicine, published in the Transactions for 1859 is given in *Science*, July 1, as a part the report of on the influence of distillery swill in the food of milch and fattening cattle.

This report, which occupies fifty-three pages of the transactions, is the fullest statement of facts in connection with distillery swill and milk which we have seen. In June, 1858, the New York board of health adopted a resolution that the Academy of Medicine be requested to lay before the board such facts and evidence as they may have in relation to the milk furnished to the citizens of New York. The academy appointed a committee of five of its members, including Drs. B. Fordyce Barker and S. Ratton Percy, and in March of the following year presented its report. The greater part of the labors of the committee was performed by Dr. Percy, and his report is the most valuable. It includes chemical analyses, which we have already given under that head, microscopic examinations and drawings, and cases of disease resulting from the use of distillery milk. Associated with Dr. Percy in his investigations was Mr. Solon Robinson, who had been long conversant with the raising and fattening of cattle, and Mr. Thomas Devoe, who had been long and extensively engaged in the slaughtering of cattle, and in supplying the markets with wholesome beef. Mr. Robinson accompanied the committee to the distillery stables, and, as the result of his observations, said, "From my personal experience in feeding cows with various agricultural products, and in producing milk and butter, I am well satisfied that cows fed as described, and kept in such an atmosphere as I could not remain in ten minutes without feeling severe sickness, must produce poisoned milk. And I do not consider the beef any more fit for human food than

the milk; not so much on account of the bad food, as the poisonous atmosphere in which the poor brutes are confined. I would no sooner touch this swill-milk than I would use milk from the most, 'milk-sick' region of Illinois." Mr. Devoe, in speaking of the quality of beef furnished by animals fed on distillery swill, says, "I have slaughtered, and seen slaughtered, the various kinds of animals that have been fed, wholly or partially on this swill, which appears to have produced almost as many varieties of beef, and I think I may be better understood by placing them under three general heads; viz., first class, second-class, and third class. The first-class beef, no doubt, is produced from thrifty steers, fed in some of the distilleries in the northern counties of New York, where only a small portion, or the liquid portion, of the food, is swill; the rest being of meal, roots, hay, and grass; and, when brought to our markets in a fat, healthy condition, their flesh proves to be tender, juicy beef, but not so firm or so sweet and well flavored as if wholly fed on grain, or even grass. The second-class beef is from animals wholly confined in these large distilleries, fed the greater portion on swill, with plenty of hay, and occasionally a little grain. I might add, that the Northern distillery swill is of a superior quality to that which is run into troughs at the various distillers where it is sold by the hogshead or other particular quantities. These Northern distilleries own both the swill and the cattle, and the quantity of swill made by them is fed up clean. This second-class of animals, although they may be fat, produce a softer quality of beef, not so well flavored, but juicy and tender. When they are slaughtered, the flesh will show or produce the peculiar smell attached to this beef. The third class is to be found in some of your neighboring distilleries, where the visitor could almost swear (unless he could see the hay given to the animals) that they had little else to eat than the thin, poor, and sometimes spoiled swill. The beef from the general run of the third class has a very peculiar, unpleasant smell, especially when slaughtered. I have known it so disagreeable as to create nausea, especially on opening the animal to take away the paunch or belly, this and some other parts I have sometimes opened to discover some signs of hay, and in some instances found none. This class of beef retains that smell, especially when cutting it up fresh into pieces, and also when cooking it. It is usually flabby or soft, and often appears adhesive or sticky, like very young veal that had not yet lost nature's first



flesh. My conclusions and convictions were made up long before this subject was so strongly agitated, both as to the meat and milk of the distillery-fed cow, which I have considered under the third class; and these conclusions are that neither the milk nor the flesh of these animals can furnish healthy human food". The committee, in summarizing its labors, says that the beef produced from the animals fed in the distillery stables is unsavory, and easily recognized by its offensive odor; that the odor is not dissipated even by the process of cooking; and that the fibre is flaccid, and its cellular tissue is infiltrated with watery fluids instead of solid fat. The milk of these cows does exhibit the characteristics of wholesome milk; it presents almost invariably an acid re-action. The cases collected by Dr. Percy demonstrate the fact, independent of any chemical examination or any *a priori* reasoning, that the milk procured from these swill-fed animals is injurious to those who use it. In view of the disclosure made, the committee state that it is evident that the traffic in the milk of swill-fed cows is one which is detrimental to the health of the community, and should be discontinued.

THE THERMAL DEATH-POINT OF PATHOGENIC ORGANISMS.— An exact knowledge of the thermal death-point of pathogenic organisms is desirable, both as a matter of general scientific interest and from a practical point of view. As biologists, we wish to know whether the vital properties of the living protoplasm contained in the minute vegetable organisms in question are destroyed at uniform temperature, and if so at what temperature; or whether there is a considerable range in the limits of vital resistance to heat exhibited by different organisms of this class. As sanitarians, we wish to know what temperature can be relied upon for the destruction of disease germs in the excreta of patients suffering from typhoid fever, from cholera, and from other infectious diseases transmitted by means of the alvine discharges of the sick; whether boiling of drinking water contaminated with disease germs, is a safe means of disinfection, etc.

Various experimenters have recorded observations with reference to the thermal death-point of different micro-organisms, but the paper by Dr. George M. Sternberg in the July number of *The American Journal of the Medical Sciences*, is the first effort at an

extended inquiry, by means of a uniform method, with a view to determining the vital resistance to moist heat of the considerable number of pathogenic organisms now known to bacteriologists.

His results permit the following general conclusions to be drawn :

The temperature required to destroy the vitality of pathogenic organisms varies for different organisms.

In the absence of spores, the limits of variations are about 18° F.

A temperature of 132.8° F. is fatal to the bacillus of anthrax, the bacillus of typhoid fever, the bacillus of glanders, the spirillum of Asiatic cholera, the erysipelas coccus, to the virus of vaccinia, of rinderpest of sheep-pox and probably of several other infectious diseases.

A temperature of 143.6° F. is fatal to all of the pathogenic and non-pathogenic organisms tested, in the absence of spores (with the single exception of *sarcina lutea*, which, in one experiment, grew after exposure to this temperature).

A temperature of 212° F. maintained for five minutes destroys the spores of all pathogenic organisms tested.

It is probable that some of the bacilli which are destroyed by a temperature of 14° F. form endogenous spores, which are also destroyed at this temperature.

THE PUPIL AS A GUIDE IN THE ADMINISTRATION OF CHLOROFORM.—HENRY J. NELSON has carefully studied the action of the pupil during the administration of chloroform and formulated the following conclusions:

1. The effect produced by chloroform on the pupil is at first dilatation, varying in degree and duration, then contraction as the narcosis becomes profound, and dilatation again when the sensibility is returning. If the administration be still continued, with the pupil still contracted and motionless, the pupil will also dilate, but in this case more suddenly and completely, and will be coincident with a state from which it will be difficult or impossible to resuscitate the patient. The latter is the dilatation of asphyxia.

2. So long as the pupil dilates in response to excitation by pinching etc., the patient is not sufficiently narcotized for the operation to be proceeded with, unless the latter is slight and does not require complete anesthesia.

When the pupil becomes strongly contracted and immobile, no more chloroform should be given until it begins to dilate again. If, then, further anesthesia be required, a little more chloroform should be given till the pupil again contracts.

4. The occurrence of sickness causes dilatation similar to but more sudden than that which happens when sensibility is returning, and the efforts of vomiting have the effect of arousing the patient.

The watching of the respiration and the pulse, which are doubtless the best indications of the effect produced on the individual by chloroform, and, therefore, of vital importance for safe administration, does not in many cases furnish evidence of the state of sensibility, in regard to which he holds the observation of the pupil to be of greatest assistance. The sign usually relied on, namely the insensibility of the conjunctiva is by no means a satisfactory test, for often there is conjunctival anesthesia long before other parts are insensible to pain. By observing the pupil the administrator of chloroform can tell at once when the effect of the drug is on the wane, because the pupil then begins to dilate slowly. Then by the administration of a few drops more of chloroform till the pupil contracts again, he can prevent the occurrence of struggling and interruption of the operation.—*Brit. Med. Jour.* July 10, 1887.

MEDICAL MISSION WORK IN JAPAN.—We have received a copy of the first annual report of the Doshisha Hospital and Training School for Nurses, in connection with the A. B. C. F. M., at Kyoto, Japan. A fine lot, admirably situated, has been secured and buildings were in process of erection when the report was issued.

An out-patient clinic had been held three days in the week during the winter, the weekly average of patients being a little over one hundred and twenty.

With regard to cholera which prevailed in Kyoto, and throughout the country, Dr. Berry says, that of the various kinds of treatment tried by different physicians the best results were secured by the following measures:

1. Absolute rest, with fasting and subsequent regulation of diet.
2. Support of vital powers by heat, etc.
3. Small doses of opium in early stages with an acid and aromatics.



CHINESE ANESTHETIC.—Dr. U. Lambeth in his third annual report of the Soochow Hospital says that the Chinese have a local anesthetic of animal origin. It is obtained by placing a frog in a jar of flour and irritating it by prodding it. It then exudes a liquid which forms a paste with some of the flour. This paste when dissolved in water has pronounced anesthetic properties, and a finger immersed in the solution for a few minutes can be pricked without any pain being felt, and numbness of the lips and tongue were produced by applying the liquid to them.

APPLICATION FOR INSECT BITES.—Bernbeck uses the following

R	Flexible collodion.	-	-	-	-	19 parts.
	Salicylic acid.	-	-	-	-	1 part.
or	Flexible collodion.	-	-	-	-	1000 parts.
	Bichloride of mercury.	-	-	-	-	1 part.

*Wiener Presse*, July 10. *Med. News*, Aug. 20, 1887.

THE COLONIAL AND INTERNATIONAL CONGRESS ON INEBRIETY held a meeting in London, England, July 6, and 7, 1887. A complimentary reception was given there to Dr. T. D. Crothers (Editor of *Quart. Jour. of Inebriety*,) by the officers of the Society for the Study of Inebriety in Great Britain.

POSITION OF THE NIPPLE.—Dr. H. T. Griffiths has taken the trouble to note 600 cases with reference to the position of the mamilla upon the thorax. He finds that the fourth intercostal space is the average position of the nipple in adults and the fourth rib in children.—*Brit. Med. Jour.* July 9.

SOLVENT FOR ANTIFEBRIN.—DR. PROEGLER, of Fort Wayne, Ind., writes to the *Medical Record* that he has used aromatic spirits of ammonia as a solvent for antifebrin and has found it very good for the purpose. Mr. Louis Schmidt, chemist, of that city suggested it.

THE MEDICAL REGISTER, of Philadelphia, will publish a daily edition during the meeting of the International Medical Congress, giving full reports of the proceedings both of the general sessions and of the sections.

THE ASSOCIATION OF AMERICAN MEDICAL EDITORS have arranged a banquet to be tendered to distinguished medical editors from abroad on the evening of Monday Sept. 5 at the Riggs House, Washington. This will doubtless be one of the chief features of the Congress to those who are privileged to attend it.

SPECIFIC FOR INEBRIETY.—As an evidence of the interest taken in the subject of inebriety as a disease in America, Dr. Crothers states that there are eleven different remedies advertized as sure cures for inebriety.

DR. WM. GOODELL has resigned the position of Physician in charge of the Preston Retreat of Philadelphia and Dr. J. Price has been elected in his place.

MEDICAL LIBRARY.—The library of the celebrated obstetrician, Dr. Alfred Meadows has been presented by his widow to the British Gynecological Society.

CARLSBAD.—It is stated that the city of Carlsbad has 12,000 inhabitants and that 28,000 visitors go there during the season.

MANUAL TRAINING SCHOOLS.—Prof. Woodward of the St. Louis Manual Training School read a paper at the recent meeting of the American Association for the Advancement of Science, on "The Methods and Results of Manual Training." He considered the methods of these schools, the economic results of their work, and the progress made in the last three years and contrasted the manual training schools with the European trade schools.

NEBRASKA STATE BOARD OF HEALTH.—A law recently enacted in Nebraska prescribes that the governor shall appoint seven physicians to constitute a State Board of Health. They must be graduates in medicine and of at least ten years standing in the profession. The term of office is seven years.

CORRECTION.—In our last issue p. 129 an oversight in proof reading makes the duration of gestation in Dr. Fitzgerald's case 409 days instead of "469 days or 67 weeks," as he wrote it.—[ED COURIER.

**DIPHTHERIA IN ST. LOUIS.**—Reports of the Health Department show that diphtheria is prevailing to an alarming extent in this city. It is a disgrace to the profession that so many of its members instead of cooperating with the authorities to suppress this disease, connive at the desire of parents to conceal its presence and neglect or refuse to report their cases or even decry and discourage fumigation of premises. A measure that certainly should be adopted and enforced is the prohibition of public funerals when death has occurred from diphtheria or other contagious disease.

**DR. W. C. WILLIAMS.**—At the meeting of the St. Charles County Medical Society held at Wentzville, the following resolutions were adopted, viz:

**WHEREAS**, It has pleased Almighty God to remove by death our esteemed member, Dr. W. C. Williams, of O'Fallon, who was one of the founders of our County Medical Society, and for the past 25 years an honored member of the medical profession in St. Charles county, therefore.

*Resolved*, That in the death of Dr. Williams the society has lost one of its most useful members, and that we deeply deplore the loss of his wise counsel and broad experience.

*Resolved*, That not only the medical profession has sustained the loss of one of its most enthusiastic workers, but society a thorough and cultured gentleman, who was ever a generous, warm and sympathetic friend.

*Resolved*, That we cheerfully testify to his kind and courteous treatment of his professional brethren, and to the lively interest he took in everything tending to advance the interests of the medical profession.

*Resolved*, That we deeply sympathize with the afflicted family in the irreparable loss they have sustained.

*Resolved*, That a copy of these resolutions be presented to the family of the diseased, and that the same be printed in the medical journals of St. Louis, and the papers of St. Charles county.

JOHN E. BRUERE.

R. W. LEWIS.

H. H. VINKE.

*Committee.*

**DR. W. A. BYRD**, of Quincy, Ill. died suddenly at Slater, Mo., the home of his father, whom he was visiting at the time. It is said that he was sunstruck Aug. 13, and lived only eighteen hours.



# ST. LOUIS COURIER OF MEDICINE.

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## ORIGINAL ARTICLES.

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### A NEW METHOD OF PERFORMING COLPO- PERINEORRHAPHY.

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BY FRANK A. GLASGOW, A. M., M. D., *in Charge of Women's Department of the St. Louis Mullanphy Hospital, Lecturer on Gynecology, St. Louis Medical College, Physician to Augusta Free Hospital, for Children.*

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GENTLEMEN, in presenting to you what I believe to be a new method of performing colpo-perineorrhaphy, I cannot help recalling to mind the old saying that "there is nothing new under the sun."

I know that many men have originated new methods of operating, and that when these were published and opened to criticism, they have found to their chagrin that they had been tried and found wanting years before. Perhaps I may meet the same fate. Of one thing I am certain, which is that all modern surgery (I speak especially of gynecology) is not conservative. Many seem to be grasping at brilliant operations, regardless of the advisability of subjecting their patients to the extra risks. We all know how prone a woman's mind is to ponder and ponder over an operation which has been suggested to her, and she will never be satisfied until it has been performed.

The first wrong step in modern surgery is in suggesting the

operation when it is not really necessary. The operation may be justifiable after the woman has been brooding over it, and has become almost a monomaniac on the subject, when it would not have been so had it not been suggested to her. We have now to operate to cure the mental as well as the bodily ailment. I offer these few remarks as an apology, if I need such, for my attempt to introduce a conservative operation on the vagina. I aim to leave the parts in as nearly a natural condition and as fit for the purposes for which they were intended as possible.

In looking over the literature of operations performed for prolapse of uterus and vagina, we find a great variety of methods advocated, from the simple closure of the vulvar cleft with rings to the denudation of the torn perineum, the vulva, and more or less of the vaginal wall, even to obliteration of the vagina. We can follow the operations almost in the order in which they were adopted, and find that more and more of the vaginal mucous membrane has been removed.

This has resulted from the unsatisfactory results attained. The operators have continued to seek the attainment of their object by removing more and more of the vaginal mucous membrane. It seems never to have occurred to them to use the redundant tissue to aid them in attaining their object. There has been no attempt to save this tissue except perhaps by Sims, in his anterior colporrhaphy. Here the object was solely to obtain a column for support, not to preserve the membrane. He removes, as you may remember, two narrow strips, diverging from the urethra to either side of the cervix, and then instead of removing the intervening membrane, turns it in. This is not an ideal operation, as we form a pocket to catch the excretion from the inturned surface. Emmet's modification does not modify this objection. I cannot see how the inclosed membrane can be utilized during parturition, so we may as well consider it as sacrificed.

My object in departing from or rather in modifying existing operations was threefold. First, to preserve the vaginal mucous membrane to as great an extent as possible, and to preserve it in such a way that it might be utilized during parturition.

Second. To form a column of the posterior vaginal wall, not simply to narrow the vagina.

Third. To form a projecting ridge or crest in the median line of the posterior wall, an exaggeration of the normal posterior column.

This crest, while acting as a column of support, acts also as a foreign body, filling the vagina, and holding up the anterior wall and bladder.

The following case will serve to illustrate the proposed new operation.

Mrs. W., native of Alsace, age 43, married thirteen and one-half years; one child four and one-half years ago; labor hard, instrumental; no miscarriage; duration of present illness four and a half years; menstruation regular, normal and painless; duration, four days.

*Condition when first seen last fall.*

Extensive laceration of perineum. Extensive cystocele and rectocele. (Cervix to be seen on raising cystocele slightly with finger.) Bilateral laceration of cervix uteri; endometritis and subinvolution; depth of cervix and uterus three and one-fourth inches; urinates frequently; dysuria; vesical cramp after urinating. She had a "dragging sensation" and a feeling as if the pelvic contents were about to fall out. There was no pelvic cellulitis except, possibly, at the utero-vesical junction, and this, I suppose, due to tension. There was considerable pain at this point, both from within the bladder with the sound, and from the vagina. The patient could not wear a pessary. Slight cystitis. I waited some time for this trouble to improve, but as it did not, and as I considered the prolapsus to be the cause of it, I operated on the cervix December 28, 1886. The operation was a success.

April 12, 1887, assisted by Dr. L. Ch. Boisliniere and four students, I operated on the perineum and vagina in the following manner: Using a Simon's speculum to hold up the cystocele, I marked out with a bistoury the surface to be denuded. This was as in the ordinary operation for perineorrhaphy, not colpo-perineorrhaphy. The angle of denudation extended to the crest of the rectocele. So far the operation was that ordinarily



done for perineal laceration with slight rectocele. I will here call your attention to the fact that this operation does not narrow the mucous membrane of the vagina but shortens it, as the crest is brought down to the perineum. So far I do not object to the removal of the membrane when there is much subinvolution with elongation and rectocele, for the reason given above.

From this point is where my method differs from any which I can find described.



FIG. I.

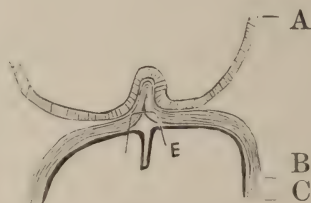


FIG. II.

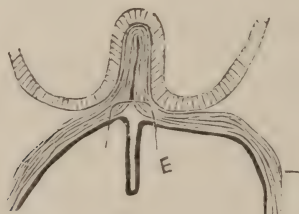


FIG. III.

A, rectal wall.

B, vaginal wall.

C, vaginal mucous membrane.

D, vaginal mucous membrane flaps forming crest.

E, sutures.

Instead of extending my denudation up the posterior wall, removing the greater portion of it as is done by Simon and others, or denuding two strips in either posterior sulcus, as Martin does, or various modifications of these methods, I made an incision through the mucous membrane, in the median line, from near the cervix to the denudation at the crest of the rectocele. I now dissected up this membrane from the incision toward the lateral walls of the vagina, probably three-fourths of an inch or

more. I now had the mucous membrane of the posterior wall in two longitudinal flaps, which when turned up, and the raw surfaces brought in apposition would form a ridge or crest along the posterior wall. The accompanying cuts will show the relation of the parts after the sutures are passed better than a description. Figure I is where the flaps are narrow, and little or none of the vagina and rectal wall is folded back; II. and III. an increasing breadth of flap, giving a firm posterior and anterior column to the posterior vaginal wall.

The sutures are passed through the untouched mucous membrane, just beyond the line of denudation, deep into the muscular wall, then out and across exposed muscular wall to near the base of the other flap, here entering the muscular wall and up through the mucous membrane just beyond denudation. They are passed back the same route and tied at point of entrance. These sutures are passed every half inch or so until the lower end of crest is reached. Catgut was used. A running suture was used along the edge of flaps of the same material. The perineum was now closed by Emmet's first method, silver sutures being passed from perineum up around crest of rectocele and back.

This left an abrupt projection of the crest, but as it was wholly within the vagina, I did not expect it either to protrude or to be of any inconvenience. Hot water was used as a hemostatic during the operation. The denudation was done with scissors. After the operation the parts were dusted with iodoform. On the third day there was considerable swelling of the skin between the two lowermost wire sutures, and the patient experienced much distress. This was relieved by morphia. The vagina was washed out each day by means of a large soft rubber catheter, and then a solution of iodoform (gr. xx to 3j) in linseed oil was injected and allowed to flow over the perineum. About the fourth day the patient complained of a great oppression about the chest, and a sensation as if she were about to die. At times she suffered from hallucinations and was delirious. She also vomited much. No fever. I ascribed these symptoms to the use of iodoform, and ceased to use it. The symptoms disappeared entirely two days later. She still took morphine

when the pain was severe, but did not vomit. It was found necessary to cut the lowest suture on the fifth and the topmost on the seventh day. They were removed with the other silver sutures on the eleventh day. There never seemed to be any tenderness in the vagina above the perineum. The result was all that could be desired. The only failure of union was at the uppermost denudation of the labia.

The end of the crest was well within the vagina, which was effectually narrowed. (Four months after operation everything is very satisfactory to the patient and myself except a slight vesical irritation.)

Of course it is too soon to predict what will be the ultimate result in this case. We know that many kindred operations succeed for a time, and then the old condition returns. During parturition when the submucous tissue undergoes the changes to which it is subject at this time, the sides of the crest will probably separate, when tension is made, but I do not consider it probable that this can occur at any other time. One curious feature in this case was that the patient was attacked with acute articular rheumatism after each operation.

There are several modifications which may with advantage be made in this method of operating. One is to denude the posterior vaginal wall from the crest upwards without making the median incision. Another is to snip off the inferior projecting angle of the crest. The upper abrupt termination will in some cases assist in holding back the cervix, acting as a ledge.

I do not offer this method as a certain cure for procidentia, but it does seem worthy of a trial. I believe by means of it we may cure those cases due to rupture of the perineum, to rupture and subinvolution of the vagina.

Those cases due to excessive weight of the uterus, to relaxation of the uterine ligaments from pelvic disease will still cause us disappointment.



## ARE KOCH'S BACILLI THE CAUSE OF CHOLERA?

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BY B. F. HART, M. D., BROWNSVILLE, MO.

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THAT these bacilli are the true cause of cholera is so thoroughly demonstrable as to leave the question no longer in doubt, may be safely affirmed.

No other department pertaining to things of this life, has been more imposed upon with false claims than medicine; hence it is right and proper that all new discoveries about the cause of disease, and the claims of a better way of treatment, should be received with much caution, and submitted to the crucial test of thorough and impartial investigation. With this question, surely this much has been done; and the proof is plain and positive enough, it would seem, to convince any unprejudiced mind; yet there is still many a doubting Thomas.

For the benefit of such, the test-light of fair and impartial reasoning will be thrown on Koch's claim. It is now generally admitted by those who at first opposed it most strongly, that this bacillus is a certain diagnostic sign of cholera. Whenever it is seen in alvine dejections, cholera is proclaimed without the least hesitation. Even Klein, the head of the English Commission sent out to investigate, after trying to depreciate and set at naught the claim without proper investigation, has felt compelled to give in on this point under the pressure of cumulative evidence.

The comma bacilli are always found in cholera excreta, and are never found associated with any other disease; and this being true, it stands to reason that the bacilli hold the relation of cause or effect to the disease. They cannot be the result, because it is contrary to all reason to allow that these bacilli should appear in various parts of this and other countries, where they had not been seen before, and far removed from their natural habitat, just on the instant to fill this important relation in a cholera scourge. Such a supposition does violence to the laws of reasoning; for no one at this day will dare to pretend that the bacillus appears spontaneously. How does it get there then? If it were not a living germ it might be a supposable case. When

acari are found in their burrows in it every time and always ; no one imagines them to be the effect. The same is true of all the entozoa and epizoa which disturb the harmonious relations of life. The worms in the wind-pipe of a chicken which give it the gapes and kill it, are never taken for the effect. In the spring season when young cabbage and corn are found cut at the ground and the cut-worm nestles close by every time, reasonable people naturally conclude that it has done the work, in other words is the cause.

Just as well proclaim the whole tribe of micrococci and bacilli that have been recognized as the special causes of various diseases, are but the effect ; for each one holds identically the same relation to the disease produced by it as does the comma bacillus to cholera. The admission, therefore, of its diagnostic value, carries with it inevitably its etiological relation.

In his address delivered before the Medical Society of the District of Columbia, E. O. Shakespeare, M. D., late cholera commissioner of the United States, while admitting his full confidence in the diagnostic value of the comma bacillus, throws doubts on its causal relation. He says, "I think there is still reasonable ground for doubt as to its being the cause." His report shows great caution and painstaking in his investigations, and furnishes evidence quite enough to bring conviction to most minds. It is impossible to understand how he reconciles his doubts with the facts adduced. The impression is produced that he is over-cautious, because of his responsible position. The diagnostic value he thinks of the greatest importance, and that for which Koch should receive great praise. Others, recognizing the etiological relation, see far greater reason for praise and grateful remembrance in that discovery ; as it not only affords recognition of the disease, but opens the way to its rational and most certain treatment, both prophylactically by inoculation and therapeutically by germicidal remedies. Numerous citations of European and Indian authority, given by Dr. Shakespeare, clearly show the general impression to be that there is a certain immunity attaching to individuals and communities, who have been once attacked by cholera. This has long been recognized in the English Army and by the Government Officials in India,

where they employ natives as nurses in cholera, who have been protected by a previous attack, thus showing the disease to move along the same line as other contagious and infectious diseases; and its importance will be appreciated when discussing the Ferran inoculations. Owing to the fact that animals are not very susceptible to cholera, the field for comparative investigation has been somewhat circumscribed; yet enough has been established in this direction to show that the guinea-pig, the dog, and the rat, have been affected by hypodermic injections of pure comma bacilli cultures, and symptoms produced very nearly akin to those of cholera in man. It did not always produce vomiting and purging in those animals; neither does the disease always act in that way with human beings, some of whom die of the disease without such symptoms appearing. But Dr. Shakespeare says he experimented frequently on the guinea-pig, and while the most usual and prominent symptoms of cholera—vomiting and purging—were generally absent, other symptoms were present such as “cyanosis or algidity, cramps and the death of the animal, with the well known characteristic intestinal contents.” If this is not a pretty good showing for cholera, according to his own admission, what is it? The algid condition is present, the cramps are present, the characteristic intestinal contents are present, and death closes the scene, just as does Asiatic cholera in man. As mentioned before this is good enough cholera: and is often marked in man by no other symptoms. It is a well known fact that many diseases to which mankind and animals are both liable, are much modified in type as they occur in the one or the other.

The cow-pox, in its manifestations, is a very different thing from small-pox in man; yet they are identically the same disease, modified by different animal constitutions.

With a view to establishing immunity to cholera influence in animals, inoculations with a small quantity of Koch's cultured bacilli have been practised. Ferran tried the inoculations on animals before using them on man, and found they gave immunity to larger doses than would have produced death without such preparation. Other investigators showed up similar results about the same time. According to Dr. Shakespeare, Cunning-



ham a celebrated cholera authority of India, told him most positively "that he had produced such a condition in guinea-pigs which he had inoculated hypodermically with cultures of the comma bacillus of a certain amount, that it was impossible to kill the same pigs with subsequent inoculations, which in fresh pigs would prove certainly fatal." Here it is seen that the comma bacilli by inoculation in sufficient quantity produce death, with many symptoms characteristic of cholera. When given in attenuated quantities not death, but protection against subsequent inoculation results. This is after the manner of small-pox inoculation, or the still further attenuation of vaccination with cow-pox virus. If not causative in its action, how is it possible to explain its relation? At first, Dr. Cunningham was stoutly opposed to Koch's claim for the comma bacillus; but after making these experiments, and giving the whole subject more thorough investigation, his thoughts changed from opposition to advocacy, at least as to its diagnostic importance. These experiments on animals are quite significant, and cannot fail to have a most convincing effect. But, to settle the question and prove to a demonstration, that the comma bacilli are the real cause of cholera, it is only necessary to consider in the light of fairness and sound reason the inoculations made by Ferran. If it shall be proven that by inoculation they give immunity in a cholera epidemic just as small-pox and cow-pox virus as against small-pox, no fair minded person can still call in question the etiological relation of this bacillus unless chock-full of prejudice or blinded to reason. The evidence on this point submitted by Dr. Shakespeare, after the most careful painstaking meets the case exactly, and is quite conclusive. Koch discovered in the comma bacillus the cause of cholera, and gave it as his settled conviction that protection was given by one attack of cholera to subsequent choleraic influence; and here he let the matter rest, without carrying the investigation to its legitimate and final conclusion. At this point, Ferran took it up, and if official statistics are to be credited, he certainly has accomplished all and even more than the most earnest enthusiast in the wildest flights of fancy could reasonably have pictured. Ferran at that time was recognized throughout Spain as a leading scientific physician, and a first-

class bacteriologist ; possessing all the elements of a gentleman

He was sent as the head of a commission to the scene of scourge by the Barcelona Government to make investigations. Soon the Government was informed of his anti-choleraic inoculations, and this was submitted to the Royal Academy of Medicine of Barcelona, which is considered the most truly representative Medical Society in Spain. From this society a commission was appointed to prove or disprove the claim of Ferran. After investigating for three months, and witnessing inoculations on guinea-pigs as well as on some of their own members, they reported confirmatorily, which was score No. 1 for Ferran.

Thereupon the Spanish government sent out a commission of three, to see if there was anything in the claim, and whether or not the inoculations were dangerous, as had been reported.

Satisfying themselves, they reported favorably ; stating further, that in the inoculations the pure cultures of Koch's bacilli were being used, and that they were harmless. This quieted the fears that had become wide-spread through the efforts of those opposed to the measure ; and scored No. 2, for Ferran.

By this time these inoculations had become the talk of the civilized world, and partly because of misrepresentation and partly because it was a great innovation on stereotyped notions, much unfavorable comment found expression ; it being asserted that the successes claimed for Ferran were partisan, having been worked up by interested friends.

Now, to ascertain definitely what truth there might be in this claim of protection given through these inoculations, the Spanish government sent out a second commission, "with instructions that official and careful statistics be collected by the usual or special officers for that purpose." As shown by Dr. Shakespeare this trust was most faithfully and honestly discharged ; which resulted in the complete vindication of Ferran's honesty of purpose, and the establishment of his claim on a sure and solid foundation ; thus scoring No. 3, for Ferran. It may be well to see what importance should be attached to this last official commission. It is said by Dr. Shakespeare, to be a notorious fact that the heads of the general government, the provinces and municipalities, of Spain, were opposed to Ferran personally, and

to his anti-choleraic engrafting. This being the case, it certainly ought to counteract and forever set at rest this clamor about partisan reports. In attestation of the correctness of statistics obtained, six different official parties pledge their signatures, namely : The physicians of the villages where the inoculations occurred, the municipal judge, the president judge of the judicial district, the curé of the parish, the secretary of the municipality and the mayor and the notary public of the district. What stronger proof could be asked as to the correctness of statistics ? From many other sources too, testimony is received of Ferran's good work. Note the facts revealed by these statistics, and answer if the inoculations do not protect; and in this connection it must not be forgotten that there were comparatively few re-inoculations. Ferran claims still greater immunity after second inoculations ; and Shakespeare says hardly anyone died when attacked, who had been previously re-inoculated. This stands to reason and common sense, and corresponds to what is known about removing the susceptibility to small-pox through repeated inoculations or vaccinations.

Statistics from twenty-two villages, where about one-third of the population had been operated upon by Ferran, show not only a very remarkable difference in susceptibility to the cholera plague, but to its fatality as well, when attacked. Of those who had been inoculated, 12 out of every 1000 suffered attack. Of those who had not been inoculated, 80 out of every 1000 make the count. This is nearly seven to one in favor of inoculation only one time. Of those who had been inoculated and took the disease 3 out of every 1000 died ; and of those who had not been inoculated and took the disease 33 out of every 1000 died, which is ten to one in favor of protective influence. The mortality rate of inoculated persons attacked was 26 per cent, and those not inoculated 42 per cent. This is not as good protection as that given against small-pox by vaccination ; but it is a very good showing to start with ; giving as it does very great protection, and saving many lives. When repeated until susceptibility shall have been removed, there is great reason to hope that the protection will be immensely increased, and not inferior, perhaps, to that given by vaccination. This accords with Shakespeare's



information in reference to re inoculated cases, and the claims set up by Ferran. But hold ! A little casting up of figures just here seem to show conclusively that the protection given by these inoculations is even better than that afforded by a first vaccination. Here they are, and they are not presumed to lie. It has been pretty well settled that of all those who receive vaccination for the first time, about two-fifths are thoroughly protected; two-fifths partially protected only and liable to have varioloid ; one-fifth from various causes are left wholly unprotected, and hence subject to unmitigated small-pox. By repeated vaccinations nearly all these partially protected and unprotected persons may have the susceptibility to the disease entirely removed. Now, transfer this two-fifths rule of protection from vaccination to the Ferran inoculations, and see how it works. The twenty-two villages heard from officially, show 30,491 persons inoculated, and 104,561 not inoculated. Of those inoculated 387 were attacked; and of those not inoculated 8,406 were attacked. This indicates about 80 to the thousand of those wholly unprotected, subject to the disease. A consideration of the reasons why only about 80 out a thousand are subject to attack, is not within the purview of this article. There are doubtless various agencies at work. Suffice it to say that this is about the rate; for of 361 villages in Spain, where cholera prevailed, official statistics show 88 to the 1,000 attacked. According to this showing, 2,439 of the 30,491 inoculated persons, would have been attacked if they had not been previously inoculated. Now, two-fifths of that number—the full protection given by a first vaccination—is 976. But, out of the 2,439, only 387 were attacked by cholera ; thus giving 2,052 in behalf of cholera to go free; whereas there were no more than 976 in favor of first vaccination. Or if four-fifths be taken, 1,952—the partial and full protection from vaccination—still the showing is in behalf of Ferran's anti-choleraic treatment. This is believed to be a fair statement of the actual protection given in either case from first vaccination against small-pox, and first inoculation against cholera. It must not be forgotten, however, that these tests of Ferran were made in the face of the scourge, where in many instances no doubt the microbe was already at work in the system. Another significant fact,

showing the wonderful potency in favor of protection of these engraftings in the midst of epidemic influence, is the history of the disease as it appeared at the village of Benifayo with a population of 3,615. Through extensive inoculations during the active prevalence of the disease, it was quite suddenly arrested in its course, and soon subsided. That those who had been inoculated felt greater confidence, exposed themselves more than the non-inoculated, and consequently were more frequently attacked than if the risk had been less it is fair to conclude. Under the same degree of exposure, no doubt, the difference in favor of inoculation would be even more strongly marked. Owing to opposition from various quarters, the Koch and Ferran investigations have been uphill work from the beginning.

The work of the English Commission sent out amounted to nothing, since at first they made no tube and plate cultures of the comma bacillus, and but very little later; although they reported unfavorably, when Koch had definitely declared such procedure to be positively necessary in order to differentiate. The fact is, England is a centre of trade, and strongly opposes the idea of contagion and quarantine measures, because commercial interests would be jeopardized. From the overwhelming and bitter opposition manifested at the time to this phase of the cholera question by Englishmen in England and India, it looked very much to outsiders as though the jury had been empaneled to convict. Klein has finally admitted diagnostic value, but the comma bacilli as cause he does not accept, for that means contagion and quarantine.

Ferran met with opposition both at home and abroad. The French Commissions undertook to dictate a line of investigation after their own notions, which he would not tolerate. This led to much misrepresentation as to his method and honest purposes. Jenner encountered opposition quite as strong; but to-day the world sings his praises. All new inventions of a striking kind, and all innovations on time honored notions, are certain to encounter prejudice, jealousy, conservatism and old fogysm. It is not going beyond a reasonable calculation, to predict that Koch and Ferran will take their places by the side of Pasteur and Jenner and be handed down to the latest generations as among the greatest benefactors of the human race.

It having been conceded by nearly all bacteriologists who have investigated the subject that the comma bacillus is a never-failing attendant in cholera cases, there can be no question whatever of its holding the relation of cause or effect to the disease ; and since it has been shown conclusively that there is nothing to justify a claim to its being considered the effect, while on the contrary all the evidence points to it as a cause, and further, since it produces symptoms of cholera in men and animals when intensified by inoculation, and yet by greater attenuation, gives protection and immunity against the cholera plague, all manner of reasoning look to it as the cause.

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## THE INTRODUCTION OF MASSAGE INTO THE TREATMENT OF SKIN DISEASES.

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BY DR. HANS FROELICH, ST. LOUIS, MO.

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*"Nothing new under the Sun."*

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IT was in the Turko-Russian war, 1877, when the following incident happened to me.

After the battle of Leskovats, I received as my share of the spoils a beautiful Arabian stallion, five years old. As we were forbidden to keep stallions in the army, I concluded to have him castrated by an Arabian veterinary surgeon. He performed the operation very dexterously. The treatment after the operation consisted in fumigation, which he applied several times a day. He used a basin filled with charcoal on which he placed some black pills. When I asked him what stuff he fumigated with I was very much astonished to hear that it was tar, and that tar was used for the treatment of wounds for hundreds of years by the Arabian school. What Lister concluded by his theory, was known to our Arabian colleagues may be for a thousand years by experience.

If Gottfried of Bouillon and his Knights had brought us this Arabian experience from the Holy Land, this service for humanity would have been greater than all their other results.



When I was in Smyrna after the peace of San Stefano, I saw an Arabian colleague in a bath-room treating elephantiasis Arabum by massage—the first time that I ever saw the old manual massage—even known and highly esteemed in Homer's and Ramses' times. I didn't stay long enough at Smyrna to follow up the result of this treatment, but my Arabian colleague assured me that the results were astonishing, which experience I agreed to theoretically. The first time I had occasion to remember this incident was in 1879, when I was physician of the St. Gotthard railroad, then to be built. Our miners were all from upper Italy and suffered severely from pellagra. I never before had seen this disease. I had seen scorbutus, and I am very much inclined to think that scorbutus and pellagra Lombardorum are the same disease, for we have the same symptoms, the slightly bleeding, swollen gums, dark blue, always passive congestion, the numerous blood extravasations in all tissues and the congestion of the lower extremities. A few of these cases of pellagra I treated by massage, and had splendid results as regards the local symptoms and the general behavior also. But I was too overburdened by surgical cases, and could not follow these pellagra cases, so they were sent home as soon as they were detected.

Another occasion to recollect the treatment of elephantiasis by massage was in October 1886, when a Miss L. came to consult me about a "skin disease."

In the month of May 1886, she began to remark an intense itching eruption on both legs; from there it spread to the arms and afterwards to the trunk. She used various kinds of treatment but didn't improve. The want of sleep made her extremely nervous; for months she did not sleep at night. She was nearly desperate. Inspection showed a broken down constitution, pale and livid looking complexion. The forearms and partially the arms were covered with brown crusts and scabs, separated by more or less deep fissures. The skin was generally thickened and under the crusts lay the red weeping Rete Malpighii and exuded a clear lymphatic fluid. It was a case of *eczema universale*, for the same condition was found on the legs from the toes to the hip and on the trunk. The trunk showed more symptoms of *eczema*

*impetigiosum*, while on the extremities the *eczema squamosum* and *erythematosum* prevailed. The lower extremities from the knees down were extremely thickened; hands, head and sexual region showed no eruption at all.

I proposed Hebra's treatment combined with manual and daily performed general massage. In proposing massage for treatment of a skin disease, I was confident of its success. A great number of skin diseases show undoubted origin in troubles of the peripheral nerves and their terminations. Eczema especially shows in combination with these troubles a disturbance of the arterial, venous and superficial lymphatic circulation.

The symmetrical eruption of the same form of eczema on corresponding parts of the body is, I think, of nervous origin (morbid innervation). The peripheral stagnation, as it is ordinarily only superficial, has more influence on the lymphatic circulation. This stagnation, if not removed mechanically, spreads more and more in extension as well as in depth. And so we have the first and most significant symptom of the eczema in the more or less abundant exudation of lymph, a proper lymphorrhea.

Hebra's treatment for eczema, very conscientiously applied and for a long time, too, will cure almost always for a certain time so far as the eruption itself is concerned. But the many and many returns of the eruption show that only the consequence of the morbid innervation, *i. e.*, the eruption, has been cured, not the original factor of the affection, the disturbed innervation of the peripheral nerves.

Now, by introduction of massage into the treatment of skin diseases, I thought, its great mechanic effect would not only shorten the local manifestation by removing the results of the passive stagnation, but by its general reviving and stimulating qualities on the vital factors of the skin, it would be able to have a more favorable effect on the disturbed innervation than any other treatment till now proposed, and would enable us to effect a cure in shorter time and more completely. I do not intend to give an extended story of the effect of the daily treatment. It might be too tedious for the reader. I think it sufficient to report only the results.

The effect of the first treatment alone proved a surprise and delight to the patient. I used first *spiritus saponatus kalinus*, then *ol. olivarum*. The crusts were softened and left the Rete Malpighii nude and red, with numerous drops of clear lymph exuding. But it was only too delightful for the patient, for I remarked while massing the extremities, that the swollen thickened skin and subcutaneous tissues, which in the beginning felt hard and resistant, diminished more and more. The instep of the foot and the region around the malleoli grew softer and softer. The circumference diminished for inches every session, and what was the most important for me, didn't fill up again. The tar-treatment after the massage was excessively painful, so I was forced to progress a little more slowly with that part of the treatment. After the fourth day of treatment the patient enjoyed for the first time for months a complete rest at night. The itching was entirely reduced, and where formerly a tense and resistant skin covered the limbs, we now had a lax skin hanging in folds.

The patient gained ten pounds in three weeks, her complexion looked more and more healthy and after six weeks of treatment she was discharged, cured. No return of eczema ten months later.

I would remark in this connection that I first treated one arm by massage and Hebra's treatment, the other arm *only* by massage, and I found that the progress of the recovery was about the same in both.

II. H. Sch., butcher, St. Louis, consulted me in January, 1887, for *eczema universale*. The disease began ten months ago, spread over the whole body, including ears, scalp and one eye, throat and genital region excepted. The crusts were very thick. After a week's treatment the patient slept the first time for ten months. After a month's treatment the arms were perfectly clean and I thought them cured, as I could detect neither oozing places nor papules.

But patient always complained of having yet something under his "hide," as he expressed it himself, very butcher-like. By further examination I found on the inside of the arms many subcutaneous nodules, the skin over which was perfectly healthy and easily movable. These formations were not in groups, but irregularly scattered over the forearms. Only a few of



these protuberances were visible to the eye, the most of them were only noticed on touch, and by passing the hand over the skin it felt like a grater under the skin. The skin, where there were none of these nodules, was pigmented. It was principally the dorsal aspect of the hands, forearms and the feet, which was affected. The plantar and palmar regions, flexures of knee and elbow and axilla were free from any efflorescences. The lymphatic glands were a little swollen, not much. First, I used strong solutions of silver nitrate and corrosive sublimate, but I had no success with them. The fuming nitric acid removed these efflorescences radically, but I left it off and used the curette. By removing the nodules of forearm and ankles with the curette, I detected in the midst of each a clear drop of lymph, while the protuberances on the wrist and instep on removal showed the characteristics of *hyperplasia papulo-verrucosa*.

What was it? It is quite certain that these shot-like bodies were an independent affection, existing prior to the eczema and standing in the relation of cause to effect. I never saw prurigo, as Hebra describes it, but I think it was prurigo, for it showed the symptoms of prurigo too distinctly. There were only two symptoms which my case did not possess in common with his. Hebra says that prurigo is congenital and incurable. If my case was congenital or not I cannot decide, for patients are often stupid in regard to such things, but I think, nevertheless, it was not congenital, for it would have produced eczema earlier. My patient is fifty years old.

The second point is the incurability. Well, my case is not entirely cured yet; it was cured in the month of June, so far as all symptoms of eczema had disappeared, and the nodules too, after 150 massages. Patient was ordered to come three times a week to my office to be masséed, but he failed to come. I heard he feared the great heat, and also that through an attack of prickly heat he got a light return of the eruption.

The treatment of this case is not yet completed, but the success of the treatment already seen has led me to hope for an entire cure.

3. Mr. Chas. K., saloon-keeper of St. Louis, suffered for years excessively from *eczema ad anum*. He had been operated upon for piles and fissures, but without success.

The examination showed an *eczema erythematosum* from the perineum up to the top of the sulcus. In the folds of the mucosa ani I detected an oozing erosion of the mucosa as large as a hemp-seed. Further, I noticed two scars from operation on the sphincter and one across the sulcus. The whole perineal region was extremely tense and showed remarkable passive congestion.

I diagnosed *fissura ani and eczema ad anum consecutivum*.

Treatment. Massage with Hebra's treatment. The fissure was cured after seven days, the eczema after six weeks. It shows inclination to return on the scars running across the sulcus. For that reason patient has orders to continue the treatment for some time.

4. Ad. F., suffered since 1867 from psoriasis. Face and hands excepted, the whole body is covered with the characteristic eruption; the nails of the toes, too, are degenerated.

I treated the right arm with chrysarobin, the rest of the body with Hebra's tar treatment and massage.

Result.—Sometimes the fresh small spots disappear more rapidly by treatment with chrysarobin, but large complexes are to be treated with Hebra's treatment and massage, for they disappear sooner and pigmentation remains after chrysarobin treatment.

Before closing my article on criticizing the success of the introduction of massage into dermatology, I shall state the following points:

1. Manual massage in dermatology is of high value, by methodically removing the effete products of the disease in the skin and their neighboring tissues.

2. By its stimulating qualities the massage exercises a reviving effect upon the degenerated vital parts of the skin, empties the obstructed glands and pores, gives the perspiration new impulse and stimulates the elastic factors of the skin.

3. The massage recommends itself for the treatment of skin disease by shortening the treatment and, as we think, through radical cure by removing the morbid innervation by reason of its character as a nerve tonic. Should I ever have had any idea of it had I not seen that old Arabian rub his elephantiasis patients? "Nothing new under the sun."

1314 Olive street.

## CASES FROM PRACTICE.

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### A CASE OF GOITRE TREATED BY GALVANO-PUNCTURE.

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BY M. J. EPSTEIN, M. D. ST. LOUIS.

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Mrs. D. æt. 30, married, mother of four children, pale but fairly well nourished, came under my notice about the 15th of May, 1887. Upon examination found a roundish semi-elastic tumor as large as a walnut, situated upon the anterior surface of the neck, to the right of the median line, in contact with the lower portion of the larynx. States that she first observed the swelling several years ago. Did not see patient again until June 25th, when she presented herself for treatment.

At this time the tumor had attained the size of a large orange, having grown quite rapidly and produced distressing symptoms by its pressure upon adjacent structures. It extended from the lower jaw to the clavicle, measuring four inches in its vertical diameter and four and a half inches transversely, projecting one inch to the left and three and a half inches to the right of the median line. The circumference of the neck over the most prominent portion of the tumor, was 15 inches. Pulse 96; temperature normal. Marked exophthalmos. Had aphonia; complained of dyspnea and difficulty in swallowing. Whenever she attempted to swallow solid food, she vomited.

Used an aspirator but failed to evacuate any fluid. Inserted a needle connected with the negative pole of a battery into the tumor, placing the positive electrode in the patient's hand, and occasionally on the surface of the tumor. I introduced the needle in various directions and allowed the current to pass about ten minutes at each sitting. Used six or seven of Robert's peroxide cells. Administered five grains of iodide of potash, three times daily dur-



ing the month of July. Applied the battery two or three times each week. At the second visit she remarked that she was improved, could speak better, and swallow more readily.

July 1, circumference of neck at most prominent portion of tumor measures  $14\frac{1}{2}$  inches; July 16,  $14\frac{1}{4}$  inches; July 23,  $13\frac{1}{2}$  inches.

Aug. 24. Have not seen patient for three weeks. Came to report that she is well. Upon inspection, I am surprised to observe only a fulness at the site of the tumor. Palpation reveals a hard lump, measuring one inch and a half from above downwards, one inch and a half from side to side, and only half an inch in thickness. The exophthalmos has not been benefited, and the pulse is still 90.

## CITY HOSPITAL REPORTS.

H. C. DALTON, M. D., Superintendent.

BY BRANSFORD LEWIS, M. D., Assistant Superintendent.

COMPOUND, COMMINUTED FRACTURE OF BOTH FEMURS; FRACTURE OF LEFT CLAVICLE, OF THE SIXTH RIB; DISLOCATION OF THE METACARPUS OF LEFT HAND; DISLOCATION OF THE RIGHT CLAVICLE; LACERATED WOUND OF THE ELBOW AND FACE; ANEURISM OF THE ABDOMINAL AORTA  
—RECOVERY.

W. H. W., æt. 29, Missourian, married, painter, was admitted May 17, 1886.

An hour before his admission, while painting, the patient had fallen from a scaffold to a flat roof, forty feet below. Examination disclosed the presence of a compound, comminuted fracture of each femur in its upper third, the wounds being on the outer surface of the thighs; a fracture of the left clavicle at the junction of the outer with the middle third; a forward dislocation of the right clavicle at its sternal end; fracture of the sixth rib on the left side; dislocation forwards of the metacarpal bones of the left hand; a lacerated wound of the right elbow, not involving the joint; and small lacerated wounds of the left side of the chin and face.

The various wounds were dressed antiseptically, drainage tubes being inserted into those of the thighs, as primary union could not be expected from sealing them up. A portion of the right femur, 2.5 by 6.5 cent. (1 by 2½ inches) was removed from the shaft of the bone, and both lower limbs were placed in Hodgen's splints. The dislocations were reduced and appropriate dressings applied. Five days later, it was found necessary to make counter openings in the thighs for freer drainage. Aside from the weakness incident to the shock of the injury and some spells of fretfulness, the patient did well; his temperature during the next month did not rise above 38.4° C. (101° Fah.)

By July 20, the wound in the right thigh had healed from the bottom; that of the left thigh remained open, and probing disclosed the presence of denuded bone. The fragments of both ununited.

A re-dislocation of the right clavicle was reduced and held in position without further trouble. About this time the patient began to complain of frequent darting pains in the epigastric, left lumbar and inguinal regions, running thence into the penis. It was noticed that visible pulsation existed in the epigastrium, and a thrill could be felt on palpation. A systolic *bruit*, most distinct in the same location, was transmitted faintly for a distance along the abdominal aorta. The patient's condition was then fairly good; he was given 2.5 gms. (35 grains) of potassium iodide three times daily. A month later he was occasionally annoyed by palpitations of the heart, and the iodide was temporarily discontinued. By Sept 20, union of the right femur was sufficiently firm to allow of the removal of the splint; crepitus being found in the left thigh, it was encased in a plaster splint—Erichsen's method. The signs and symptoms of the aneurism had not changed materially. On Jan. 25, 1887, fairly strong union having taken place, the left femur was cut down on, and, a necrosed piece of bone 8 cent. (3¼ inches) long removed. On March 25, in lifting the limb from the bed, the patient refractured the femur at the site of the old break, requiring a reapplication of the Hodgen splint, after which the sinuses closed and the bone healed firmly and in good line—both limbs eventually being of the same length.

On June 29, when he was discharged, he had recovered from all his injuries, and the aneurism troubled him but little. He walked with the aid of a cane.

## EDITORIAL.

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### THE NEW LOCAL ANESTHETIC—STENOCARPIN.

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Last fall a veterinary surgeon, Dr. M. Goodman, travelling in West Feliciana Parish, La., had occasion to apply a poultice to the fetlock of one of his horses, and made one from some leaves gathered up from the ground. In making an incision afterward into the part which had been poulticed he observed that the horse did not seem to feel any pain at all. It occurred to him that the leaves used might possess some anesthetic power, and took occasion to test the matter on the next occasion when he had an incision to make. The result was the same as before.

Dr. Allen M. Seward of Bergen Point, N. J., having obtained some of the leaves through Mr. Goodman, made an analysis and found among the constituents an alkaloid which proved to be the anesthetizing element, as was proven first by experiments upon cats.

The tree from which the leaves were obtained is known in the locality where Mr. Goodman lives as the Tear Blanket Tree. "It grows to a height of thirty-five to forty feet, with a diameter to the bole of about eighteen inches and a spread of foliage of thirty to thirty-five feet. The leaves resemble those of an acacia. The bark is smooth. From the ground up the tree is furnished with clumps of forked spines or thorns, the parent spine springing at right angles from the bough or trunk. Though Mr. Goodman is a native of the region, he has never seen the tree blossom. As fruit it bears pods eight or ten inches in length, flat and slightly curved, containing seeds and a viscid juice. The spines are very tough and highly polished, and the wood is extremely tough. It grows in clumps and singly, and is abundant in Louisiana."



By reason of its likeness to the acacia *Stenocarpo* Dr. Seward called the new alkaloid *stenocarpin*.

In the *New York Medical Record*, July 30, Dr. J. H. Claiborne gives an account of this new discovery from which the above is condensed and also relates a series of experiments made by himself to determine the scope and power of the alkaloid.

Tests were made first upon the eyes of rabbits and later Dr. Allis, of Plainfield allowed the experiments to be carried out upon his own eyes. The results were so satisfactory that afterwards the tests were continued by using the solution upon the eyes of patients.

The results were such as to convince Dr. Claiborne that the value of the alkaloid in cases of eye diseases is by no means inconsiderable.

By personal tests and use in practice Dr. Claiborne found that *stenocarpin* has efficient anesthetic action also upon the skin as well as upon the mucous membranes.

Dr. H. Knapp has made further experiments with regard to the action of this drug, and reports utter failure to secure any anesthetic action upon healthy skin, by external application of a two per cent solution, the strength used by Dr. Claiborne, though the hypodermic injection of two to four minims caused complete anesthesia over a limited area in ten minutes. Constitutional symptoms were produced by the hypodermic use of four minims, dryness of tongue and throat, general lassitude, fulness, stupor etc., continuing for about half an hour. The action upon mucous membrane strongly resembles that of cocaine.

Pushing the dose to determine toxic effect he injected ten minims into the largest vein of one ear of a rabbit. As soon as the liquid entered the blood slight fibrillary convulsions or tremors were noticed over the front part of the body, and as soon as the injection was ended, which was not over ten seconds, the animal lay down dead. No respiration, no movement of any kind was noticed. It was doubtful whether the heart still beat; if it did, it

was most weak and not for one minute. "He says it was the quietest and most sudden death he ever saw from any cause."

Both Dr. Claiborne and Dr. Knapp observed very great mydriatic action of the body when applied to the eye.

Dr. Knapp, in summing up the results of his own and Dr. Claiborne's observations, remarks that the new anesthetic chiefly differs from cocaine in its more powerful and lasting mydriatic property and that this difference will determine its range of applicability.

Further observations will be necessary to determine the full value of this agent; and it must be born in mind that strongest toxic effects were observed when the agent was injected into the veins and therefore great caution must be used in its hypodermic use.

The supply of the drug is very limited and the cost very high, sixty cents a grain. Doubtless if further research shall confirm the present estimate of its value the supply will equal the demand and the price will diminish like that of cocaine.

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## HEART MURMURS AND LIFE INSURANCE.

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Some years ago Dr. Flint called attention to the fact, that cardiac murmurs were by no means always indicative of such disease as materially abbreviates the life of the person in whom they are detected, and suggested a modification of the rule adopted by most of the prominent life insurance companies, by which the presence of a cardiac murmur is made a definite and positive ground for rejection of the risk.

In a paper entitled "The Prognosis of Certain Heart Murmurs, with Special Reference to the Selection of Risks for Life Insurance (*Med News*, Aug. 20. 1887) Dr. Frank Donaldson discusses the subject at some length.

He says: "There has always been a strong tendency to overestimate the importance of heart murmurs in themselves, (heart disease in general), and to take too grave and solemn a view of them, without considering their position, or the symptoms associated or

not associated with them. Of late years, however, especially among those skilled in auscultation, there has been a decided change of opinion, and the hopelessness which was once attached to the presence of organic disease of the heart no longer obtains. The discovery of a murmur is not now regarded as an infallible indication of unavoidable and early death."

The points to be considered in forming a prognosis as to forms of heart disease, as he lays them down, are the following:

1. The valve affected and the relative danger attaching to the particular lesion.

2. The actual condition of the orifice and valve, and the degree of obstruction or amount of regurgitation to which the lesion has given rise.

3. The nature and tendency of the morbid change in the valve, whether stationary or progressive.

4. The condition of the muscular tissue of the heart, and how far the compensatory changes may be counted on.

5. The mode of life of the patient.

As to relative danger, he arranges diseases of the left heart thus: "Mitral stenosis, aortic regurgitation, mitral regurgitation, aortic stenosis; though the latter is the most fatal when it is developed late in life, when it is progressive in character, and when compensatory hypertrophy is with difficulty established,

Considering these in reverse order, he says of aortic stenosis that its "supposed frequency is chiefly due to the fact that all those cases in which a systolic murmur is heard are classed as cases of true stenosis, when in reality in only a small proportion of such cases does this condition actually exist." "In a given case, however, where we have an obstruction in the flow of blood, we find considerable hypertrophy; and if this be due to the narrow valves, the aortic second sound will be indistinct. If, however, the sound is accentuated, the hypertrophy is due to renal disease, and tends to a less favorable prognosis. The pulse in the true aortic stenosis will be very long and slow, and the artery will be small and full between beats. Aortic stenosis proves fatal by the slow operation



of dropsy, mitral regurgitation following as a result of dilatation. But the danger is not imminent as long as the aortic obstruction is uncomplicated by mitral troubles. Dropsy having once set in in a case of aortic stenosis, there is less probability of recovery than in most other valvular affections."

Concerning aortic regurgitation he says: "If with the diastolic murmur the second sound be distinctly audible in the neck, the dilatation and hypertrophy are inconsiderable, and the pulse exhibits the collapsing character only in a moderate degree. If the valvular lesion be the effect of acute endocarditis and therefore probably stationary, the prognosis is favorable. If, on the other hand, the second sound is completely abolished, with hypertrophy, dilatation, and a collapsing pulse, the prognosis is grave, and the comfort and life of the patient depend greatly upon his family constitution, age, habits, occupation and circumstances. It should be remembered that the heart's nutrition is not well maintained after middle age, and that there is a tendency to increased peripheral resistance with increasing age. Coming on late in life, aortic regurgitation is always serious. The disease is progressive and finally ends either from a failure of the ventricle in systole (in which case we have the attacks of angina, paroxysmal dyspnea, weak and very irregular pulse etc., but no dropsy, or death ensues from venous obstruction, and the symptoms do not differ materially from those of mitral insufficiency. Sudden death may be expected, and is the rule in aortic insufficiency."

Mitral insufficiency he is disposed to regard as a fact less serious in prognosis than even aortic stenosis, though he has placed the latter lowest in his scale in accordance with common opinion. He regards as of little import a circumscribed mitral murmur, not heard in the back; but cautions against underestimating the significance of the soft murmur of a gaping orifice and a weak heart.

"The first indication of marked insufficiency is the accentuation of the pulmonary second sound, followed by hypertrophy and dilatation of the right ventricle from increased pulmonary pressure,

with displacement of the apex of the heart and hypertrophy of the left ventricle with consequent increased cardiac impulse. At this stage the symptoms may become very serious and alarming, but proper treatment and care may establish the equilibrium and the patient continue in fairly good health for years. \* \* \* As long as compensation is established our prognosis is very favorable, but it grows, of course, less so if there are signs of dilatation, vascular derangement etc." Concerning the prognosis of these forms of vascular heart disease with reference to insurability he says: "The only two forms of such disease which I consider as ratable are mitral insufficiency and slight aortic stenosis. Speaking generally, aortic defect is most to be dreaded; mitral lesions, on the other hand, being the most hopeful." He quotes Sir Andrew Clark as saying, concerning mitral disease, that there being no degeneration of the heart, the disease having existed for two years, the ventricles being in good order, and the arteries sound, and there being no persistent basic murmur and no recurrent hepatic congestion, and no tendency for colds to hang about the patient, and his general health good, the mitral disease will not shorten his life.

Functional murmurs, Dr. Donaldson does not think should ever of themselves reject a risk. For the last two years he has made a practice of simply postponing such cases and has several times had the satisfaction of finding that after a time with or without treatment such murmurs have entirely disappeared and the applicants secured the desired insurance.

Certainly it is well worth while for insurance examiners and medical directors to give careful consideration to the question, whether a certain part of those who have hitherto been peremptorily rejected on account of the presence of a heart murmur may not yet be safely accepted with advantage to the company, and whether, as Dr. Donaldson suggests, the rigid enforcement of the rule as at present laid down is not a serious injustice to a class of applicants who now are ineligible.

## BOOK REVIEWS AND NOTICES.

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A MANUAL OF TREATMENT BY MASSAGE AND METHODICAL MUSCLE EXERCISE. BY JOSEPH SCHREIBER, M. D., etc. Translated with the author's permission by WALTER MENDELSON, M. D., of New York. Philadelphia, Lea Brothers & Co., 1887, 8vo., pp. 285, cloth, \$2.75.

The treatment of disease by massage and other forms of methodical muscular exercise is a subject to which comparatively little attention has been paid by educated physicians, and this valuable therapeutic agency has been relegated so largely to the hands of ignorant and incompetent practitioners that the very word has been associated with quackery and charlatanry, just as has been the case with electricity. Only within the last few years has the attention of competent and intelligent practitioners been turned to the investigation of these agencies; and such men as Billroth, Benedikt, Charcot, Eulenburg, Esmarch and others have both written on the subject and have made personal use of mechano-therapy in treating disease.

While the different manipulations can be learned readily enough by any one who will note the relations of the soft parts and bones, yet a thorough knowledge of anatomy and physiology is necessary to secure the proper benefit from active and passive movements in the treatment of disease, and these movements should be practised by the physician himself, or under his direct supervision.

The volume now before us is a valuable contribution to the literature of mechano-therapy. The author is enthusiastic with regard to the efficacy of this mode of treatment, and at the same time not intemperate in the claims which he makes for it.

Among the measures recommended are pressing, tapping, hacking, pinching and concussing, stroking, rubbing and kneading.

The cases in which good results may be confidently expected from mechano-therapy are those in which it is desirable to secure



increased circulation in the soft parts, to strengthen muscular fibres, to cause resorption of exudations, to stimulate the sympathetic nervous system, increase the oxidizing powers of the blood, relieve congestion of internal organs, or to educate morbidly affected or weakened muscles.

Neuralgias dependent upon anemia or malaria, myalgias, neurasthenia, hypochondriasis, cerebral congestion, chorea and scrivener's palsy are among the affections in which most of good can be expected from this treatment.

We commend the volume to the attention of our readers as well deserving their careful perusal and study.

THE PRACTITIONER'S HAND-BOOK OF TREATMENT, or the Principles of Therapeutics. By J. MILNER FOTHERGILL, M. D., etc. Third American from the third English edition. Philadelphia, Lea Brothers & Co., 1887, 8vo.; pp. 660; cloth, \$3.75; sheep, \$4.75.

The record of the actual experience and observation of a man who has had wide opportunities and has made good use of them is always a valuable contribution to the literature of the department in which he has done his work, and when in addition to this such a man has the happy faculty of presenting the results which he has reached in an agreeable style and attractive form, we then have all the elements of a valuable and interesting volume. Such is the work under consideration. In it Dr. Fothergill has succeeded, it seems to us, in a remarkable degree in making available to others experience which he has himself had in the treatment of patients. It is a work of special value to young practitioners, but those of older standing in the profession will find in it valuable suggestions as to treatment.

Some of the explanations which he gives for therapeutic recommendations will hardly stand close criticism, but it is by no means always easy to explain the action of therapeutic measures which are unquestionably successful, and on the whole the work is a very satisfactory one.

THE TREATMENT OF HEMORRHOIDS. By CHARLES B. KELSEY, M. D., Detroit, Geo. S. Davis, 1887. (The Physicians' Leisure Library.) 16mo., pp. 78; paper, 25 cents.

This little volume, No. 1 of the Physician's Leisure Library for 1887, is an admirable introduction to the series. Dr. Kelsey is an

acknowledged authority on the treatment of all forms of rectal disease; and he has, to an exceptional degree, the power of expressing concisely and clearly the results of his own observation.

He gives a very distinct conclusion as to the value of the carbolic acid injection treatment of hemorrhoids, and while he still uses that treatment in many cases, he is a strong advocate of the operation by the use of the clamp.

The "Leisure Library" for this year is very nicely prepared, and the use of brown ink is certainly a novelty in book-making. It strikes us as a mistake, for most physicians have to do their reading by lamplight, and certainly for such reading the ordinary black ink is more distinct and legible than that here used.

PRACTICAL BACTERIOLOGY. By THOS. E. SATTERTHWAITE, M.D. (The Physicians' Leisure Library.) Detroit, Mich., Geo. S. Davis, 16mo.; pp. 85; paper, 25 cents.

Dr. Satterthwaite's well known ability as a microscopist and pathologist eminently qualifies him to prepare a manual of this sort for the purpose of introducing the student and practitioner to practical study of bacteriology; and he has done this as well as it can be done probably in the space at his disposal.

While emphasizing the importance of accurate bacteriological research and the necessity of the practical physician being informed as to the results of such investigation, we can but express our hearty approval of the following paragraph with which our author concludes the introductory chapter of his work:

"At this point I think it well to state that I fully agree with Cornil and Babes, who have written the most elaborate and perhaps the most satisfactory work on the subject, when they recommend the reader to be cautious in his acceptance of much that has been written on bacteriology, and it is for the following reasons: The morphology of bacteria has not been completed, in a botanical sense; the territory in which they live and move is an uncertain one; animal experimentation is a delicate matter, and offers large opportunities for controversy; the technique of this kind of work is peculiarly difficult, even for one who is versed in ordinary laboratory methods, and finally, the problems relating to the chemical nature and properties of the substances elaborated by bacteria have still to be solved."

PRACTICAL URINE TESTING. A Guide to Office and Bedside Urine Analysis for Physicians and Students. By CHARLES GOODWIN JENNINGS, M. D., etc. Detroit: D. O. Haynes & Co., 1887. 16mo.; pp. 124, cloth.

This little volume gives concisely and clearly a good description of the various constituents of the urine with the best modes of testing for the presence of abnormal matters, or estimating the presence of an excess or deficiency of normal ingredients. The criticism of some of the more common tests is well made, and the suggestions for other and better ones are reliable.

PREGNANCY, PARTURITION AND THE PUERPERAL STATE AND THEIR COMPLICATIONS. By PAUL F. MUNDE, M. D. (Physicians' Leisure Library.) Geo. S. Davis, Detroit, 1887. Square, 16mo.; pp. 110; paper, 25 cents.

Dr. Mundé has compressed into the 110 pages of this little volume all that can well be said in so limited a space on this most important department of medical science.

It is simply "a sketch," as the title page suggests, but the outlines are distinct and the drawing accurate.

The publisher of the "Leisure Library" has given us an excellent series of little manuals at a wonderfully small price, and we heartily commend them to our readers.

POCKET MEDICAL FORMULARY, Arranged Therapeutically. By ALEXANDER HAZARD, M. D., and BERNARD M. GOLDBY, M. D., etc. Revised and enlarged by Abraham S. Gerhard, M. D., etc. Philadelphia, Pa., Collins, Printer, 1886. 24mo., pp. 344; cloth.

This is simply a compilation of formulæ used by different eminent practitioners grouped together under the names of various diseases which are arranged alphabetically with blank pages interleaved on which the owner can make an entry of other formulæ which may attract his attention in reading or intercourse with other practitioners. It may be of considerable service to a student or young practitioner, and its suggestions may sometimes be helpful to men of some years of experience.

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THE AMERICAN DERMATOLOGICAL SOCIETY, at its meeting last month, elected Dr. J. E. Atkinson, of Baltimore, as president for the coming year.



## BOOKS AND PAMPHLETS RECEIVED.

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BOOKS.—Syphilis. By Jonathan Hutchinson. Philadelphia, Lea Brothers & Co., 1887. 16mo., pp. 532; cloth, \$2.25.—Cyclopedia of Obstetrics and Gynecology, Vol VI. Handbook of General and Operative Gynecology. By Dr. A. Hegar and Dr. R. Kalténbach. In two volumes. Vol. I., Gynecological Examinations, Minor Therapeutic Manipulations, and Elementary Operations. Operations on the Ovaries. With one hundred and twenty-nine fine Wood Engravings. Edited by E. H. Grandin, New York, William Wood & Co., 1887. Svo.; pp. 352; cloth.—Diseases of the Female Urethra and Bladder. By F. Winckel, M. D.; and Diseases of the Vagina. By A. Breisky, M. D., edited by E. H. Grandin, M. D. Vol. X. of "Cyclopedia of Obstetrics and Gynecology," (12 vols. \$16.50) issued monthly during 1887. New York, Wm. Wood & Co., Svo.; pp. 393, cloth.

PAMPHLETS AND REPRINTS.—Forty-Sixth Annual Announcement St. Louis Medical College, Session 1887-88.—Second Annual Announcement Dayton Medical University.—St. Paul Medical College Catalogue 1887-88.—Announcement 1887-88 Missouri Dental College.—Advances in Surgery, Medicine and Pharmacy in the last Forty Years. By C. W. Moore, M. D., San Francisco. (Pacif. Rec. of Med. and Surgery.)—Iritis. By A. G. Sinclair, M. D., Memphis, Tenn. (Tenn. State Trans. 1887.)—Must the Ovaries Go? By Young H. Bond, M. D. (Weekly Med. Rev., July 10.)—Electrolysis in Organic Stricture and Gleet. By G. W. Overall, M. D., Memphis. (Miss. Valley Med. Mo.)—The Uses of Adhesive Plaster in Orthopedic Surgery. By A. B. Judson, M. D. (New York Med. Jour., June 24.)—The Radical Cure of Retro-Displacements of the Uterus and Procidentia by Alexander's Operation and Median Colporrhaphy. By J. H. Kellogg, Battle Creek, Mich. (Trans. Mich. State Med. Soc., 1887.)—On the Existence of "Dermatitis Herpetiformis" as a Distinct Disease. By L. Duncan Bulkley, A. M., M. D., etc. (Jour. of Cut. and Ven. Dis., April, 1886.)—Announcement and Catalogue of the National Medical College, Medical Department and Dental Department of the Columbian University, Washington, D. C., for the sixty-sixth session, 1887-1888.

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TAPE-WORMS.—A writer in *Science* states that in the Texas grazing region tape-worms are remarkably frequent. Inasmuch as a considerable part of the beef eaten even in the eastern cities is that from range cattle, killed and shipped across the country in refrigerator cars, it behooves all to be cautious about eating raw or half cooked beef.

## REPORTS ON PROGRESS.

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### DISEASES OF THE NERVOUS SYSTEM.

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BY FRANK R. FRY, A. M., M. D., *Clinical Lecturer on Diseases of The Nervous System at the St. Louis Medical College.*

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*The Treatment of Progressive Locomotor Ataxia with Rarefied Air after the Method of Junod.*—PROF. HENRY M. LYMAN A. M., M. D., Chicago, in the July number of *The Journal of Nervous and Mental Diseases*, gives a partial history of a case in which there has been a persistent use of this method. The condition is unmistakably tabes, therefore an account of the earliest symptoms is not necessary here.

“The patient continued actively engaged in his business, traveling from California to New York and elsewhere; and finally in October, 1880, was married, though compelled to keep his bed, without the slightest desire or ability to consummate the marriage.”

“About the same time Mr. D. found himself suddenly deprived of the means of support by the failure of the mercantile house with which he had been connected. The effect of this disaster was decisive. Eyesight began to fail, ataxia increased, the muscles of the lower extremities began to dwindle, lightning pains were frequent and agonizing. The rectum became anesthetic and uncertain in the retention of feces, the feet were cold and numb. Walking was almost impossible.”

“While in this condition, D— was persuaded to make trial of Junod’s boot, applied daily to the lower extremities, along with vigorous dry-cupping of the spine. This mode of treatment produced a gradual improvement in the condition of the patient, so that when he came under my observation in the summer of 1882, I was able to record the condition as follows:

“There is still some degree of ataxia manifested in the movements of the feet, especially when excited or weary. The

upper extremities are perfectly manageable. Anesthesia has disappeared from the regions where it was formerly manifested, but the tendon reflexes are still absent. The patient walks, easily and rapidly with a cane, but he is unsteady on his feet with his eyes shut, and he is unwilling to trust himself in the dark. There is considerable atrophy of the optic discs. Amatory feelings have been revived, and sexual intercourse has been performed several times without much subsequent lassitude. The patient feels competent to resume business, but is wise enough to see that the disease is not cured. He still continues the use of the cupping apparatus every other day, and is positive in his conviction, that his improvement though gradual, is progressive."

"Thus far had been the course of the disease at the date of my report in 1882. Since then, I have had opportunities at intervals of a few months, for noting its evolution. During the past five years there has been a complete development of the second stage of the disease, and a partial entrance upon its final, paralytic stage. The patient has lived in various parts of the country, and has taken very little medicine, but has made constant use of the cupping apparatus which he had furnished him six years ago. He has usually applied the boots to his lower limbs as often as every other day. It is to the effect of this treatment that I now desire to call especial attention." "So far as the onward march of the spinal disease is concerned, the treatment has produced no appreciable result. This is true of this case, as it is, also, of every other case of genuine *tabes dorsalis* in which I have seen it tried. If employed during the first and second stages of the disease, when the characteristic fulgurant pains form a prominent feature, great relief is sometimes experienced, but no other immediate result can be discovered. It is important in this connection to avoid the error of mistaking the natural subsidence of pain in advanced stages of the disease for the effect of treatment. But when the paralytic stadium is imminent my observation of this patient leads me to believe that considerable benefit may be derived by the treatment of the limbs with rarefied air. When this treatment was commenced, six years ago, the muscles of the lower limbs of my patient were becoming incapable of supporting the weight of the body, and the circulation of blood in the extremities was insufficient to maintain their natural color and temperature. Daily application of the boots, with rarefied air, produced a gradual im-



provement until the patient was again able to stand and to walk as well as before the collapse of his limbs. At the present time he is able to walk, though with the usual ataxic gait, and the muscles of the legs are firm and solid. Above the knees the muscles of the thighs present the same conditions as high as the middle of the upper third of the thigh—that is, as high as the boot can reach when applied to the limbs. Above this point, the abrupt transition in the continuity of the muscles from a full and natural volume to the thin and flaccid structure of atrophy is very remarkable. The muscles of the hips exhibit the same progressive atrophy, and it is probably invading the muscles of the trunk. Only those regions which have been subjected to the action of rarefied air have escaped, and the line of demarcation is too well defined to admit of any doubt in the premises.”

The following are Dr. Lyman's conclusions about the use of this agent:

I. That progressive locomotor ataxia cannot be cured by dry-cupping.

II. That the painful sensations which accompany the evolution of the disease may sometimes be relieved by this method of treatment.

III. That the principal advantage resulting from the use of Junod's cupping apparatus consists in the improved nutrition of the muscles of the limbs which are subjected to its action.

IV. That the delay of muscular atrophy thus produced is due to the local action of rarefied air upon all the structures of the affected parts, and is limited to the tissues which are actually inclosed within the exhausted receiver.

V. That the improvement of nutrition is therefore principally accomplished by direct action, rather than by reflex influences, exerted through the spinal cord.

VI. That in the use of rarefied air we employ an agent which is competent to fill a subordinate and limited, yet often serviceable position in the treatment of cases that are characterized by a tendency to muscular degeneration.

This, probably, is also true in other diseases besides progressive locomotor ataxia.”

*Paramyoclonus Multiplex*.—M. ALLEN STARR, M. D. describes this as a spasmodic affection of the muscular system of peculiar character and distribution.

The distribution especially is peculiar; namely, to the muscles of the trunk and proximal portions of the limbs, and only occasionally those of the neck and face.

The spasm is a characteristic one; not a sudden, single irregular muscular contraction, like that of chorea, but bilateral, involving several muscles of a physiological group at once, thus resulting in a series of movements, any one of which can be voluntarily made. The clonic contractions continue, when once set up, for a time varying from a half minute to ten minutes, and are succeeded by an interval of complete freedom from spasm that lasts from half an hour to about a week. Sometimes the movements are very violent, at other times the amount of contraction in the muscles is not enough to move the extremity.

The characteristics of the disease make it possible to differentiate it from chorea, epilepsy or hysteria, with which affections it would be more likely to be confused. These characteristics may be summed up as follows: Paramyoclonus multiplex is a spasmodic affection of the muscular system, occurring bilaterally in symmetrically situated muscles attached at one or both ends at the trunk, and in muscles whose function is associated with these, consisting of a series of violent clonic spasms of considerable rapidity and severity, occurring only at intervals; and associated with fascicular tremors of the affected muscles, persisting during the interval between the spasm. It occurs after some mental or physical strain, and is not accompanied by any disturbance of sensory or motor functions, excepting by an increase of the superficial and deep reflexes. It can be excited by irritation of the skin and tendons.—*The Jour. of Ment. and Nervous Dis.*

*The Cerebral Circulation During Sleep.*—DURHAM many years ago by observing the vascularity of the brain through a trephine aperture, demonstrated that in sleep it is relatively in an anemic condition. These conclusions have been many times confirmed by later observers who have used his methods.

SPEHL has resorted to a new and altogether different method of studying this point. He suddenly arrests the circulation between head and trunk by an écraseur, placed close to the head; the latter being finally removed, without any loss of blood. The relative amount of blood in the head and the remainder of the body is then determined. These figures then form a basis for estimating the relative

amounts of blood in the heads of sleeping and wakeful animals.

His conclusions are as follows:

1. During the sleep produced by chloral the brain, taken en masse, is anemic.
2. Chloral hypnotism very closely resembles natural sleep, (Labbée, Gubler, Rabuteau, Claude Bernard, Liebreich, Bouchut,) and it is probable that during the latter the brain is equally anemic.
3. During sleep, natural or otherwise, certain parts of the brain are in activity, while others are in repose.
4. The active portions probably are congested; the parts in repose are physiologically anemic.—*Brain*,—July 1887.

*Nerves in the Liver*.—A. B. MACULLAM says: Observations made with the chloride of gold method showed that there is an intimate relation between nerve fibrils and liver cells. Nerve filaments enter the cells, and terminate in bead-like enlargements near the nucleus—*Quart. Jour. Micros. Science*,—March 1887.

*Crushed Nerves*. The behavior of the axis cylinder of nerves that have been ligatured shows that it is not fluid, but has a considerable power of resistance, and possibly elasticity, as well. FRANZ TAUGL in *Arch. Micros. Anat.* pl. XXVII.

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## MEDICINE.

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*Treatment of Cholera*.—PROF. V. ZIEMSEN says that in his experience calomel is the most valuable drug in the treatment of cholera in the prodromal stage. He would commence with two or three doses of .5 gram (gr. viiss) and then give small doses .05 gram (gr.  $\frac{3}{4}$ ) every two hours. The antimycotic action of the calomel is believed to be due to the transformation of an indefinite but certainly minute portion of the drug into the corrosive chloride in the intestine.

The professor disapproves the use of opium, but says, "that the ethereal oils combined with opium and known as Russian "cholera drops," are said to have a favorable effect, though as usually given in peppermint tea the taste is atrocious and increases nausea.



Mulled wine is preferable on account of the ethereal oil which it contains, as well as the amount of tannin which it contains.

He emphasizes the importance of close attention to diet and whatever is connected with it. In cholera time every case of diarrhea must be at once put to bed, and warm applications made to the abdomen and a cup of hot tea administered. If there is any indigestion he recommends a hydrochloric acid mixture (3 to 150 water and 25 syrup) and for food and drink only oat and barley water. And this, he says, exhausts the most essential part of the treatment of cholera diarrhea. In all cases in which diarrhea is profuse and resists other treatment for twenty-four hours, he would commence at once with the calomel treatment as indicated above.

In cholera, the specific infectious vomiting and diarrhea, the same line of treatment is indicated. For the vomiting, and to allay thirst small pieces of ice may be swallowed and morphine given subcutaneously in doses of .01-.02 (gr.<sup>1</sup>/<sub>6</sub>-<sup>1</sup>/<sub>3</sub>).

When called to a case of cholera fully developed, he would at once commence the calomel treatment, and also would make use of Cantani's treatment by enteroclysis, or injection into the intestines of large quantities of a tannin solution. Cantani speaks as follows: "The warm mass of water certainly acts mechanically and by its heat in a way to vivify and stimulate the intestine and the whole organism, but the principal point is the stimulation of absorption, in consequence of which, thickening of the blood and anuria are prevented, or actually antagonized if already set in. He thinks further, that the tannin sterilizes the contents of the intestine and possibly forms insoluble compounds with the alkaloids of degeneration, thus rendering them harmless, and limits transudation from the mucous membrane by its astringent action on the blood vessels. He admits that other agents, as hydrochloric acid 5 per cent, as also corrosive sublimate, salicylic acid, boracic acid, thymol and some other agents have a more efficient action in sterilizing than the tannic acid, but he has been so well satisfied with the tannic acid that he has no inclination to experiment with other agents.

Another measure advocated by Cantani, and to which Ziemssen gives approval, is what he calls, hypodermoclysis, for the purpose of antagonizing the effect of the rapid loss of water and alkalies from the blood and tissues. One to one and a half litres (two to three

pints) of a solution of sodium chloride 4 grams, sodium carbonate 3 grams to 1000 cc. of water at a temperature between 37° and 40°C., according to the temperature of the patient, are injected into the subcutaneous tissues of the body. This is to be repeated about every four hours until the favorable effects, which may appear after one injection, are manifested. These effects are re-animation of the organism, warming of the extremities, improvement in the pulse and respiration, and disappearance of anuria and cyanosis.

Keppler, of Venice, injects into the neck or infra-clavicular region 50 cc. every minute until pulse returns, then every five minutes and later every half hour, until in all from 8 to 12 litres (8 to 12 quarts) have been injected of a solution of 1 gram of salt 1000 cc. of distilled water and 10 grams of absolute alcohol. He emphasizes the value of alcohol for sustaining the heart, and v. Ziemssen approves his claim.

In beginning paralysis and cyanosis v. Ziemssen recommends camphor in the form of ol. camphorat. fort. (1: 5) hypodermically, and says that when three to five syringefuls are injected one after another at the right time the action on the heart is favorable.

Rubbing the bellies of the muscles with a large piece of ice has proved the most effective remedy for the muscular cramps of the legs and other parts.

Continuance and repetition of the diarrhea with colic and tenesmus are best treated locally with warm infusions of tannin with some opium or, if large injections are no longer borne, by small clysters of warm, thin starch and opium several times. In the later stages of the disease opium is a very valuable remedy.

*Regimen of Cholera Convalescents.*—PROF. v. ZIEMSEN in the lecture above referred to, calls attention in closing, to the importance of diet and regimen generally of patients convalescent from cholera as follows: The severe and partly necrotic lesions of the intestinal mucous membrane, the extensive epithelial loss, the tendency of the vessels to new hyperemia, the faulty state of the assimilative functions, all demand the greatest precaution, and we cannot too strongly oppose the impatience of the patient and his friends to quickly return to solid food and to leave the bed. Restoration takes place more rapidly and more completely in bed and on a fluid and semi-fluid diet. You will not go wrong if you regulate the diet for three or four weeks, as after a severe attack of typhoid fever.—*Jour. Am. Med. Asso.* July, 23.

*Salol in Diarrhea, Dysentery and Intestinal Inflammation.*—DR. A. H. GOELET writes that he finds salol a most valuable remedy in the treatment of diarrhea, dysentery, and inflammation of the intestines.

The first case in which he tried it was that of an adult, who had had a bad diarrhea for three days, and had been treated for half that time with bismuth, extractum pancreatis and bicarbonate of soda with a milk diet and had received no benefit. Dr. G. ordered salol in ten grain doses every two hours. The movements ceased after the second dose, as also the pain and cramps. The medicine was continued, one dose an hour before meals for a couple of days. Movements were natural and occurred once a day, showing no constipating effects from the medicine, a condition which is often so annoying after opium treatment.

The next case was one of acute indigestion with diarrhea and vomiting in a child fifteen months old. He ordered one grain to be placed dry on the tongue and a teaspoonful of water to be given afterwards, the dose to be repeated every two hours. The vomiting ceased immediately, and in six hours the diarrhea had ceased. The powders were then given every four hours. The next day the stools were natural and the medicine was discontinued.

Dr. Goelet says that this "is the only purely satisfactory remedy that he has ever used in these cases."

While the adult dose is ten grains, the dose is much larger in proportion for children, and varies very considerably with the age. For a child six months old or under the dose is half a grain every two hours. From seven to ten months old the dose may be from one half to one grain, according to the severity of the symptoms and the strength of the child, a child one year old may be given from one grain to one and a half grain according to the severity of the symptoms. A child fifteen to eighteen months old may take one and a half to two grains. For a child of two years the dose would be two grains. At three years two to two and half grains; at four years two and a half to three grains; and at five or six, three to three and a half grains. From this age it is seldom necessary to give more than five grains. It is always given to commence with every two hours and, as the symptoms are relieved the interval is lengthened to three or four hours. Sometimes it is well to continue it three or four times a day for one or two days after the symptoms have abated.

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Dr. Goelet says "the application of salol in bowel complaints is very extensive." He finds nothing better in typhoid fever than this remedy, administered every three hours. He does not claim that it shortens the attack of fever, but says it relieves the excessively disagreeable odor of the feces, the tenesmus and flatulence.

Intestinal inflammation of children in summer, if treated by salol and a proper diet, is much less formidable than under other forms of treatment.

Diarrhea and dysentery of children in summer, is more promptly relieved by salol than by anything else, according to Dr. Goelet.

In referring to the diet of infants during the warm weather, he notes the unreliability of milk in hot weather on account of its tendency to develop tyrotoxon, and notes the same objection which holds for the artificial foods, which are prepared with milk. He expresses a preference for the malted milk food made by Horlick, of Racine Wis., which is the same as the original food except that it is combined with milk in the process of manufacture, so that in preparing it for use water only is used instead of milk.

*Ice Water Enemata in Diarrheas and Dysenteries.*—Dr. A. H. GOELET recommends the use of ice water enemata, especially where there is rectal tenesmus with bloody and slimy stools, and elevated temperature.

It is best for the physician to give the enema himself, at any rate the first one, and it is well to add some hydronaphthol or salicylate of sodium or other antiseptic to the water, both for the direct effect in diminishing the fetor of the intestinal contents and for the moral effect upon the parents or other friends.

An ordinary Davidson syringe may be used, but it is better to use a fountain syringe held only so high as to cause the water to flow in gently, and at intervals the flow should be checked by compressing the tube. By proceeding in this way and holding the buttocks together firmly with a towel over the hand, the child may be made to receive and retain a considerable quantity, if the recumbent position is maintained for a few minutes.—*N. Y. Med. Jour.* August 6, 1887.

*Cannabis Indica in Diarrhea.*—DRS. BOND AND EDWARDS report that their experience leads them to place a high estimate upon cannabis Indica in the treatment of summer diarrhea, confirming

the view of Dr. Rennie, of Cawnpore, India, who has used it successfully in that country in the treatment of dysentery. The combination which they use commonly is as follows:

R <sup>y</sup>	Tr. cannabis Ind.,	-	-	-	-	-	m.x.
	Liq. morphinæ, <sup>1</sup>	-	-	-	-	-	m. v-x.
	Spt. ammon. arom.,	-	-	-	-	-	m.xx.
	Spt. chloroformi,	-	-	-	-	-	m. xx.
	Aquam ad.	-	-	-	-	-	℥j.

M. Sig. At once, and to be repeated every one, two or three hours according to circumstances. No food for several hours but a little brandy and water.

The great depression, frequent watery stools, vomiting and cramp-like pains are quickly relieved, appetite speedily returns and by the following or third day the cases are practically well except for some weakness and debility.

*Hemorrhage from the Mouth of a Child Nine Days old.*—DR. RUDOLPH MENDER relates a rare case which came under his observation, July 9, when he was first called to see an infant nine days old that was bleeding profusely from the mouth especially from the tongue. There were large blood clots in the mouth and bleeding points along the rim of the gums and palate. The gums, cheeks, both sides of the tongue and palate showed granulated and rough surfaces, as if caused by some caustic application. The child had fever and was much emaciated. In spite of judicious treatment the child died at one o'clock the following night.

On post mortem examination the mucous lining of the lips, cheeks, gums, palate and sides of the tongue were covered in different places with a granular curdy substance, of brownish color, protruding more or less and firmly adherent to the mucous membrane. The tongue was covered with a thick red brown and bloody substance, of spongy appearance. This mass could be removed with a scalpel from the tongue, leaving quite an even surface on the tongue.

The esophagus presented numerous masses of parasitic deposits of *oidium albicans*, otherwise normal.

The larynx and trachea contained some streaks of coagulated blood, apparently aspirated from the mouth.

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<sup>1</sup>The British Liq. morphinæ contains but four grains to the ounce of water. Therefore the dose indicated above equals only  $\frac{1}{48}$  or  $\frac{1}{96}$  grain.

Both lungs were enormously congested. Stomach was distended and somewhat congested, liver and bowels, especially ilium and lower colon highly congested.

Microscopic examination showed the red-brown covering of the tongue to consist of epithelial elements impregnated with blood corpuscles, and a whitish body of granulated and amorphous appearance consisting chiefly of elastic tissue, epithelial elements, and a large quantity of *oidium albicans*, the filaments and spores of which were seen projecting in all directions through the masses. The doctor is disposed to regard the fatal hemorrhage as due to a hemorrhagic diathesis or hemophilia, as the mother stated that she had rubbed the child's tongue with a cloth saturated with salvia tea in order to remove the thrush, after which the bleeding was noticed.—*Daniel's Texas Med. Jour.* August, 1887.

*Salix Nigra as a Sexual Sedative.*—DR. J. HUTCHISON has used with great satisfaction a fluid extract of salix nigra or pussy willow in cases where ovarian distress was the symptom of most importance in the patient's opinion, though he generally found other evidence of an irritable nervous system. The most important cases were those of women of a nervous temperament, in whom the nervous irritability reaches its height at the menstrual period when along with the general *malaise* is added a very decided pain in one or the other ovary. They also suffer from hemicrania, the pain being situated above the left eyebrow and resembling the feeling as if a nail was being driven into the skull. Many of them also complain of a pain underneath the left breast and extending around to the back. In quite 75 per cent of such cases great relief was obtained after two or three days treatment with salix nigra, half dram doses of the fluid extract three times a day.—*Brit. Med. Jour.* July, 20, 1886.

*Dyspepsia with Anorexia.*—DR. H. HUCHARD suggests the following formula:

R <sub>x</sub>	Syr. aurant amari corticis,	-	-	-	60 (3 xv)
	Tr. rhei,	}	-	-	aa 10 (3 iiss).
	Tr. gentianæ,				
	Tr. nucis vom.				
	Chloroform,	-	-	-	ggt. x.

M. Sig. Teaspoonful with each meal.—*Nouveaux Remedes*, July, 24.



*Chloride of Sodium for Migraine.*—DR. RUBOW relates in the *Annales de la Société Médico-chirurgicale de Liège* a method of treatment of migraine which was discovered by chance.

A young man suffering from petit mal and presenting a distinct aura, was advised to carry with him table salt and to swallow some of it on the first sign of the aura, in accordance with the method of Nothnagel. This prescription was faithfully executed and succeeded perfectly. Delighted by this favorable result the aunt of the patient, who had been tormented for years with violent attacks of migraine, made use of the same means at the beginning of each of these attacks, which were always accompanied with notable disturbance of the stomach, (sense of fulness and a desire to vomit, etc.). She took from a half to one teaspoonful of salt and then drank some water, and succeeded constantly in cutting short the attack, or even in making it disappear in half an hour when it had already fully developed.

Encouraged by these observations, Rubow decided to try the remedy in other cases, and the results which he has obtained are very favorable.

In cases where the attack of migraine commences with stomach symptoms, sea-salt administered at the proper time has acted in a truly remarkable manner. The number of observations is not large, six favorable cases. In several patients it has failed.—*Jour. de Méd. et de Chirug. Prat.* Aug. '87.

*Treatment of Colds.*—DR. WHELAN recommends in the treatment of colds, both as a prophylactic and curative agent, the following formula:

R	Quin. sulph,	-	-	-	-	-	gr. xviii
	Liq. arsenical,	-	-	-	-	-	m. xij
	Liq. atropinæ,	-	-	-	-	-	m. j.
	Ext. gentianæ,	-	-	-	-	-	gr. xx.
	Pulv. gum. acaciæ, q. s. ut ft. pill no. xij.						

M. Sig. One pill every three, four or six hours according to circumstances. If commenced in the early stage of a common cold, when the affection is limited to the nose and pharynx, it will be arrested at once. Commence by giving one pill every three or four hours, later increase interval to six hours. The author says, that under this treatment a cold seldom lasts three days. He thinks the remedy acts as a powerful nervine and general tonic.—*London Med. Rec., N. Y Med. Rec.* Aug. 13.

## OBSTETRICS.

*Ipecacuanha in Labor.*—A. A. WOODHULL calls attention again to the value of ipecacuanha in cases of labor when the os is rigid and the pains ineffective. In 1876 he published the opinion that ipecac is essentially a stimulant to the organic nerves and that its emetic properties are incidental. Dr. Carriger, of Knoxville, Tenn., in 1878 published in the *N. Y. Med. Jour.*, an article on Ipecacuanha in Labor, taking the ground that it is "a potent and reliable uterine motor stimulant," and that its influence over uterine hemorrhage is not, as sometimes taught, "due to sedation upon the heart and arteries, but to its power of coordinating uterine action and stimulating tonic contraction". He gave it in labor cases in doses of two grains every thirty minutes and had followed that practice since 1851.

His reports and views have been translated into the French and recently have come to light again as translated from a French journal and commented upon in an editorial in the *Medical News* of July 23.

Dr. Woodhull urges the more general employment of this drug in the class of cases specified.—*Med. News*, Aug. 20, 1887.

*Roetheln during the Puerperium.*—DR. J. A. KILE records a case of a primipara, æt. 17, delivered with forceps Dec. 26 at 11:15 P. M. of a male child weighing 8 pounds. Placenta expressed in half an hour afterwards.

On the following day all the symptoms were satisfactory. On the second day following at 10 A. M. T. 100° F.; P. 90, compressible; 4 P. M. T. 105.5°; P. 140; delirium; slight tenderness over abdomen; lochia suppressed; 11:30 P. M. Antipyrin had reduced T. to 103.2° F.; P. 120. Vaginal injections of Hg. Cl. 1—5000 at 115° F. had been used every two hours, and flaxseed poultices over the abdomen. Bowels had been moved by an enema.

The next morning at 8 o'clock T. 101° F., P. 96. Lochia still suppressed. The whole body including face and scalp was covered with an eruption of roetheln.

The lochia reappeared the following day. The temperature fluctuated, reaching 102.8° F. on the eighth day of the confinement and then gradually returning to the normal three days later. It was about three weeks before the eruption had entirely disappeared, and then desquamation occurred.—*Bost. Med. and Surg. Jour.* Aug. 18 '87.

*Twin Birth with 64 Hours Interval between the Expulsion of the two Fetuses.*—DR. GURGEL DO AMARAL states that he was called to a negress who had just given birth to a child at term and detected the presence of a second living fetus presenting by the vertex. The patient having no pain, and there being no danger either for her or for the child, he did not interfere. Labor for the expulsion of the second fetus did not commence until sixty-four hours after the birth of the first. It was of short duration and terminated favorably. *O Brazil Medico: Lyon Méd.* July 10.

*Blue Color of Vagina as a Sign of Pregnancy.*—JOHN W. FARLOW analyzes one hundred and forty-one cases of pregnancy with reference to the occurrence of the blue coloration of the vagina. In thirty-six cases there was no blue coloration present; in thirty-five the color was suggestive and in seventy it was characteristic. In studying the cases he concludes that any circumstances which affect the blood supply of the vagina in pregnancy, as a uterine hemorrhage from a polyp or from threatened abortion might cause a marked difference in the coloration of the mucous membrane.

On the other hand Dr. Farlow has seen three cases where the coloration was almost characteristic and one in which it was quite so, in which there still was no pregnancy at all.

Dr. Chadwick presented the result of observation of 281 pregnant and 56 non-pregnant women. His conclusions were:

(1). That its absence is not to be accepted as evidence that pregnancy does not exist, especially in the first three months, where satisfactory evidence is most needed.

(2). That from (and including) the second month, this color is generally present and often of such character as to be diagnostic."

He says: "I have found the color of great assistance in making a diagnosis in the early months of uncomplicated pregnancy, and in the later months in cases of retroversion of the pregnant uterus; extra-uterine pregnancy; in pregnancy complicated with fibroid tumors of the uterus or with ovarian tumors; in pregnancy occurring in women with very fat or tense abdominal walls; when the existence of pregnancy was unknown or concealed; when menstruation persisted after conception; and when conception has occurred during lactation without the intervention of menstruation. —*Boston Med. and Surg. Jour.* July 21.



## SOCIETY PROCEEDINGS.

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### ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

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Stated Meeting. May 19, 1887. Dr. W. Coles, President, in the chair.

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#### PERINEORRHAPHY.

*Dr. Frank Glasgow* read a paper on a "New Method of Performing Perineorrhaphy." (Vide p. 289).

*Dr. Coles.*—How long since the last case was operated upon?

*Dr. Glasgow.*—Six days.

*Dr. Boisliniere.*—The first case I saw, and the result was very good; there was, you may say, a raphé or posterior column of the vagina, nearly half the width of the finger, forming a very solid support there which also extended to the superior part of the vagina, and so in a great measure corrected the cystocele. I think it is a very good operation. I think these operations will be improved every day by new suggestions. As the doctor observes, in this operation the vagina is preserved; there is no loss of tissue. In the ordinary operation, pockets are apt to be formed in which secretions are retained and non-union follows. In this operation no pocketing is possible, because the whole is closed and there is no removal of the posterior wall of the vagina at all, but it leaves smooth surfaces. I think it is important that this operation should be improved if there is room for improvement in it.

*Dr. Engelmann.*—I am very glad to hear Dr. Glasgow's paper, but I must say I don't quite agree with him in the belief that we get a support, or the most desirable support, by this operation. Every operation of that kind varies, at least with one who is not following a certain guide. Now this method gives us a crest of mucous membrane that is of no value in the support. We have the possibility in the vaginal tract of making a crest of muscular, sub-mucous and mucous tissue, so that the result, as I see it now gener-

ally, is not precisely a crest, but a solid ridge from the rectum toward the uterus, which is made by bringing together the tissues to their full depth. In that way we get support. What we want is a solid wall there to support the parts. I doubt very much whether the folds of mucous membrane will be of any help, but when we bring the tissues together deeply, we have a solid ridge which does support. A method, which is not my own, but which I have not seen anybody else here use, is Schroeder's method; and it appears to me to be the rational method of operating, giving a solid posterior wall without doubt.

As to the amount of paring and denudation, it seems to me that every operation varies. I don't know that I have ever performed two operations alike. The tissues are thicker or thinner; one patient is past child-bearing; another is younger—every case differs, but I like to get a vagina with a strong posterior wall, and the amount of paring would depend upon the size of the vagina. We have then a good deal of tissue to bring together, and we have a broad laceration. If we put in our suture at one side, bring it around and take it out on the other, as a consequence we pucker this tissue all up. That is not the way in which we would do if we were going to sew a piece of cloth together. We would unite one layer after another by successive tiers or rows of stitches. Now that I think, for a large denuded surface, is a correct way of bringing about union; that will give us a solid column of tissue in the centre, a very different support from two bits of mucous membrane put together. First run an interrupted or continuous cat-gut suture through the tissues at the base, thus contracting the denuded surface. Then take the same needle and begin at a higher point and run another continuous suture in the opposite direction. Now then we have a small surface and another suture, beginning at the mucous surface at the edge of the cut, will bring the balance together, then you are bound to have a solid support. If it is not deep you will not need the third tier of sutures, but if you find superficial sutures are necessary put them in. Schroeder has used these tier sutures in a great many operations. I have not seen them used here, but it struck me at once as a very satisfactory method. I have used it in only two cases; and they gave a splendid solid perineum. I have begun to put the stitches in at a point up towards the cervix and run one tier towards the anus. I have not used more than two tiers. All these operations differ; we may pursue

one method, but I vary the operation according to the individual case, and for the purpose of obtaining a solid posterior wall, I know of nothing better than this, because it gives an amount of solid tissue which causes either a narrowing of the vagina or leaves a solid broad projection up the centre. Dr. Hodgen suggested a perineal operation somewhat like the one which Dr. Glasgow describes, and published it in the *St. Louis Med. and Surg. Jour.* in 1875 or thereabouts. Then there is a method for the entire preservation of the membrane, in which the vaginal mucous membrane is used as a covering and throws the secretion out over the perineum; those are the only two that I remember at this moment, but the idea has been variously utilized and suggested. The idea has been to prevent the entrance of pus into the sutures or between the united surfaces, and it has generally been as a flap laid over the parts to throw the discharge from the vagina directly out without touching the surface. I don't know all the methods that have been proposed, but the very fact that Dr. Glasgow does not appear to be aware of them, is evidence that they have not been utilized, and that they have not been very advantageous. I have seen them performed here and there as a test, but they have never taken hold among the profession.

*Dr. Boisligniere.*—When you put in the lowest tier of sutures do you put your finger in the rectum to prevent involving the rectum with them.

*Dr. Engelmann.*—Yes sir; I do that anyhow. I think it is always safe to place the sutures as deep as possible without touching the rectal mucous membrane, so I would use the finger as a guide.

*Dr. G. A. Moses.*—This operation which Dr. Glasgow has represented is an improvement, and his mechanical idea is a correct one—that column to support the weight is more efficacious than a plain surface, and it certainly is a very ingenious conception, and I hope the case he has operated on will prove satisfactory to him. I suppose his idea was also that in case the woman bore children again there would be more of the original substance there to yield than if there was simply cicatricial tissue. In this he may be right. Development more readily occurs in perfectly normal tissue than in cicatricial tissue of any kind. The amount of effective support to be derived from these operations afterwards, setting parturition aside, is perhaps questionable, as Dr. Engelmann suggests, but I want more particularly to speak of the operation mentioned by Dr.



Glasgow and referred to by Dr. Engelmann. I have performed the operation in several forms and, as Dr. Engelmann very correctly says, every operation must be the guide for its own method of performance. You cannot lay down exact rules as to every case; but it has been my plan, as learned from Dr. Gregory before 1875, to preserve the mucous surface to as great an extent as possible, and gradually I did even more than was suggested originally. I think Jenks, of Chicago, afterwards operated in the same manner. I have in several instances united very extensively lacerated perineums. I recollect some cases particularly in which lacerations were into the sphincter, and there was a very considerable loss of tissue in the recto-vaginal septum. In one case particularly it was, I think, two inches in depth. The plan of operation in two cases was simply to divide the rectal from the vaginal septum by an incision extending up as far as it was necessary to divide the membrane, or to cut a broad, free canal very nearly up to the level of the cervix in one instance, and the mucous membrane of the vagina was elevated and united by an old fashioned deep suture, which was contended for many years to pucker the parts and the consequence was a puckered cicatrix of which Dr. Engelmann speaks of. To overcome this a great many efforts were made, and Dr. Brittle, of New Orleans, devised his stays of metal, coated with silver and with a little crutch; when the deep sutures were passed this stay was passed into the denuded part up to the crutch and the parts closed and the sutures brought together across the crutch on the outside. His idea was that it was a complete splint, holding the denuded surfaces so as to avoid the puckering. I must confess that I was fascinated with the idea. I had had something of the same idea myself, and conceived that it was just the dodge, but upon very slight experimentation I satisfied myself that it was frequently a bad failure, and that unless they were very accurately and firmly adjusted we would fail in bringing the sides together as they should be, and we were very apt to have a gaping there which was more dangerous than the puckering. In both these operations I had a great dread of puckering. However, I drew the sutures as fast as possible, and the results of the operations were perfectly satisfactory. One woman bore children afterwards without any serious trouble. In other instances I have pursued the same general method, and so far as I know they have resulted as well. In one case in which I operated by the same general method, I attended the patient in

confinement only a few months ago; the operation had been performed by this submucous denudation without removing any tissue whatever, bringing the parts together, and there is a normal condition of the perineum. She has had two children since and one would not expect to find as good a condition of the perineum as exists in this case. I do not see any reason why this puckering condition of the perineum, so-called should be any detriment whatever. Suppose in bringing the stitches together we do gather this cellular and mucous tissue into a comparatively irregular mass, it is not cicatrix, union takes place by first intention; there is no foreign body; the scar, if any is present, is superficial, and from the moment the sutures are removed, if you examine the perineum, there is no sign of puckering. Where the denudation is to cover a large rectocele which has to be removed, and it is of importance to narrow the vagina, then the vaginal sutures will come into play and you must remove some of the vaginal mucous membrane. Then such sutures as Dr. Engelmann refers to will have great utility, but I don't see that there is any objection to this form of operation.

*Dr. Engelmann.*—Where you have a large denuded surface ?

*Dr. Moses.*—Then it may be of benefit, but in the ordinary cases of rupture, such as frequently require attention, I don't see that this would be of any benefit, but it would be difficult to perform. It is not like sewing up muscle, or an incised wound, you have a plane surface to bring together; it is a wound doubled upon itself. I wanted particularly to mention this, as there has been so much objection made to the so-called puckering, and I think a little investigation will show that it does not exist.

*Dr. Boisliniere.*—How do you pass your sutures ?

*Dr. Moses.*—If it is necessary to make a vaginal suture, I pass it simply within the vaginal surface deep enough to bring together the deep muscular tissues of the vagina. Then I take a deep suture from each angle and from the perineum, with a large curved semi-circular needle, which Emmett says is unskilful, but I always manage it.

*Dr. Engelmann.*—I think the reason we have such a great variety of operations is that we find that so many cases prove unsatisfactory. We lose sight of our cases, and I think before Dr. Glasgow speaks of the result of this operation he must wait, because at present he has no result. Dr. Moses, I presume, does not wish to be

understood as saying that a puckered union is a perfect result. I am at present treating six cases that have been operated on, four in this city, one of them twice, and they are all of them just as good as if they had not been operated upon at all, yet I believe they were all successes in their time. I think I see reasons for the failures in some of them; operations for descensus of the uterus due to laceration of the perineum. The organ was enlarged, and the perineum was closed without reducing the size of the uterus, which bore down again and stretched the perineum. I have now under treatment four cases that have been operated upon in this city, and two operated upon outside, and they must either be operated upon again, or we must get along with contraction—narrowing of the vagina with astringent tampons, faradization, etc., but they are all sufferers as they were before. In some instances they tell me the uterus was healed one month, three or four months or six months, but by and by it came down again, and stretched the parts, and the old condition was re-established. I do not know that this has occurred in my own cases. I have seen one case for a year and one for a year and a half, but older cases I do not think I have seen, and it is a question what the result is if we give them time.

*Dr. Boisliniere.*—I would like to ask Dr. Engelmann if he does not think this operation which is so difficult and often unsuccessful is often performed uselessly, when it is not needed?

*Dr. Engelmann.*—I suppose if the operation were properly performed, that is the vagina narrowed and the perineum thoroughly established, and the uterus restored to a normal condition the operation would be successful, but if only the perineum is made and the uterus not placed in proper condition then the operation is useless. It is astonishing that we follow the text-books so closely and are so likely to correct the perineal tear and neglect the vaginal tear. That is a point that needs more attention, for neither our books on obstetrics nor on gynecology give the proper attention to this; that vaginal tears are of equal or more importance than perineal tears. Perineal tears alone are less important than vaginal tears. Of course the worst are the vagino-perineal tears, and the operation which the text-books usually give is the perineal operation, and in most cases the perineal operation only being performed, the result is bound to be a poor one. But we should as a rule combine the perineal with the vaginal operation, because most cases have a vaginal tear with a perineal tear.



*Dr. Hulbert.*— I have nothing to say in regard to Dr. Glasgow's operation. I do not exactly understand it yet, but there is a point I would like to refer to, that is the point Dr. Moses has referred to of this puckering of denuded surfaces. I probably pursue the old method of passing my sutures, all of them; including the entire denuded surface and bringing them together on the outside. I do not have any vaginal sutures at all. It is the old clover-leaf operation. In making the denudation I do not hesitate to take off every particle of tissue that seems to be redundant. I go up the posterior wall of the vagina as far as I can go in the tissue that will come down; in fact I make the test of grasping the posterior tissue with the tenaculum and bringing it on a line with the urethra, and I go up high enough so that when I place that amount of tension on the posterior wall it simply smooths the posterior wall of the vagina with a tension that simply holds it up in its proper place. Then instead of making the characteristic arrangement across the cavity of the vagina, I go down diagonally on each side, going back of the sulci as deep as it seems necessary. I go to the back of the sulcus and carry the incision on the external wall of the vagina up to the labia minora, coming well out on the cutaneous tissue, coming down to the rectum on the other side. I have had an opportunity of seeing a dozen cases that have come back to me since I have operated on them; two have been delivered in the hospital the second time, and in neither case was there an accident. The majority of the cases I have not seen. In all that I have seen there has been a good perineal body, and any tendency to prolapse that might have occurred has been corrected. I have a case in the hospital now that I operated on nearly three years ago, in which I can not find a particle of cicatricial tissue, and in which I can simply see the lines where the sutures were. I never hesitate to draw my sutures until they are good and tight; I don't care if they cut into the tissue; I want them brought up snug and tight so that there will be no possibility of an opening between the denuded surfaces. I go directly through the muscular wall holding my finger in the rectum and letting the needle pass outside the mucous membrane of the rectum and carry it through, bringing the needle out at the median line, and beginning over again complete the suture to opposite side. The probability is that the tension on the tissue will cut through the muscular coat of the rectum in a short time, and that part of the tissue will be practically free and the suture will be sure to go

to the connective tissue. My idea is not to make any hesitancy about going through the muscular tissues of the rectum.

*Dr. Gehrung.*—If the freshened surface reaches up to the cervix, would you take one suture from the outside and cover that whole surface? I am asking the question because this operation referred to tonight implies a freshening of the surface up to the cervix, and that could not be covered by one suture.

*Dr. Hulbert.*—I am not criticizing Dr. Glasgow's operation; I am simply mentioning my operation; I have never had a case of laceration of the vagina; I have never had a case that that operation has not succeeded in relieving. I have had these cases of laceration of the perineum where there was a large prolapse, a large rectocele, a large cystocele; I don't exactly consider these lacerations of the vagina.

*Dr. Engelmann.*—It is very easy to determine whether the laceration goes through the perineum to the vagina.

*Dr. Hulbert.*—If you mean by laceration of the vagina, a laceration through into the rectum, I have had three cases of that kind that I have operated on by that method and I have succeeded in relieving them, and in none of them did I pass any sutures that presented in the rectum. I treated the rectal line of union the same way I did the vaginal line of union in bringing the tissue together.

*Dr. Prewitt.*—I have usually done Emmett's operation, making a sort of clover-leaf denudation. But I get a different idea of what Dr. Glasgow is aiming at. That is a different sort of thing.

*Dr. Hulbert.*—Is your operation intended for cases of what we call prolapse of the uterus?

*Dr. Glasgow.*—It is when due primarily to laceration of the perineum, and not when the prolapse is due to a weight above. I would like to answer Dr. Engelmann first. I think Dr. Engelmann has set up a dummy; and I can not object to the way he has knocked him down. He starts out with the supposition that there is nothing but mucous membrane there as a column, and I can not object to his strictures on that result. But there is more than a mucous membrane in that column: there is bound to be, if you put your sutures beyond where the denudation extends to. I did not intend that the sutures pass through the denuded portion of the flaps. They do not, they pass back at the base of the flaps where they are not denuded, and from there pass across here (indicating on

drawing). This raised portion here represents the mucous membrane of the vagina; this below is the muscular wall of the vagina. Now the mucous membrane is dissected up and raised in this way, then of course the muscular wall must form a hollow or be doubled on itself when the extreme lines of denudation are brought together. The muscular wall must come in coaptation as well as the two raw surfaces of the mucous membrane and you get a condition something like this (illustrating). Now these sutures are passed back here beyond the denuded portion of the flap, and of course include a portion of the subjacent muscular wall. When the parts are brought together, they are brought together at the base of the flaps first. Here is the muscular wall; here are the flaps; so you will have not only a mucous membrane column, but a column of muscular tissue of the vagina and of course the rectum will follow that also. If Dr. Engelmann had glanced at this sketch here, he would have understood what my object was, better probably than from what I said. Now this is essentially what Dr. Engelmann does, or what he said Emmett desired and what Simon does. Simon did not pass simply a deep suture, he passed two sets of sutures one deeper than the other. Thus the muscular wall will be pushed backwards, and the surfaces brought together in that way. The muscular fibres of the vagina are not lifted up to the mucous membrane, they are pushed posteriorly; it brings the parts together in this way. It is essentially the same in Dr. Engelmann's case in the operation that he describes. The only difference between this method and the one Dr. Engelmann described is that he places the sutures still deeper down below this line here, viz., base of flap; whether they are necessary or not is questionable. I think in some cases they may be necessary, and in a great many cases they will not be. I think Dr. Engelmann's statement that there is nothing but mucous membrane in the column is not correct.

*Dr. Engelmann.*—What is the object in preserving the crest?

*Dr. Glasgow.*—The object of the crest is to save the mucous membrane for future use. If the woman is never to bear children again, perhaps it would not be so necessary to save the mucous membrane; but my object is to save the mucous membrane, so that when it is called for it may serve its purpose. Now in regard to perineal and vaginal tears, I think you would find very few surgeons of ability nowadays who simply close the tear and let the relaxed vagina remain untouched. Lacerated perineæ I think are found more commonly resulting from natural tears than from operation.



*Dr. Hulbert.*—Do you make the statement that these sub-mucous tears are common?

*Dr. Glasgow.*—No sir; not so common, but I think you will find more or less in most cases.

*Dr. Hulbert.*—Don't you think they recover as a rule without any difficulty?

*Dr. Glasgow.*—No, sir; I do not, if you have a rupture.

*Dr. Hulbert.*—You don't think as a rule that the perineum restores itself?

*Dr. Glasgow.*—I know I have seen a number of cases which did not. The doctor says I can not judge of the operation now. I was just as well aware of that as he is. I know that such operations sometimes are apparently successful for several years perhaps, and then they give way, but as a rule those are cases where there is some weight above other than simply prolapse of the vagina, and I stated in my paper that I would not promise success in these cases—not such as it promises where there is simple prolapse from involution. The doctor speaks of uniting the mucous membrane as you would a carpet. It seems to me if you did that you would get very little posterior column.

*Dr. Engelmann.*—The only difference between this operation and any other operation is that the doctor gets this little ridge of mucous membrane. Now whether that is of any benefit or not is a question. I do not think it is. I remember a case which occurred a good many years ago. It was the largest child that I have ever seen, weighing 18 pounds: there was a breech presentation, the waters escaped early, and it was one of the worst labor cases that I ever saw. In that case we had to cut the entire length of the vagina and perineum, but in the ordinary cases there is no trouble, and there is no necessity for any means to assist in dilatation of the vagina; this column at the best is a mere strip of mucous membrane and I doubt if that is going to assist in the dilatation. Dr. Glasgow thinks it is going to give us more tissue, or that it will stretch better in labor. I doubt very much whether those two layers of mucous membrane that are simply brought together are going to assist in any way in the dilatation. I think you will have the same condition in labor that you would have if this had simply been cut off or these edges had been brought together regardless of that.

*Dr. Glasgow.*—I would like to thank Dr. Engelmann for admitting

exactly what I have been contending for. He says I would have exactly the same column there as I would with the other operation. That is what I was contending for. There is a posterior column of the mucous membrane saved, and I believe it is a principle of modern surgery to save all you can whether you have any respect for it or not.

*Dr. Prewitt.*—Why not dissect up the muscular wall with the mucous and turn that up too.

*Dr. Moses.*—The discussion reminds me of a case I saw which is somewhat interesting as an example, perhaps, of what may be expected of this column. About a year ago, I attended a lady who had been previously confined, and who had a very extensive laceration which was operated on with the result of making a solid perineum. There was a first class column there, and it extended half way up the posterior wall of the vagina. It was such a decided column that the patient had thought about consulting a surgeon in regard to the propriety of having it cut out. She had a good sized child which caused a heavy pressure upon the column, but the projection did not impede labor at all.

*Dr. Hulbert.*—In regard to Dr. Glasgow's mucous membrane column, I would like to ask Dr. Engelmann if he does not think it would almost entirely disappear by atrophy. I think there would not be much of it left inside of a year.

And this suggests the point that I want to make in regard to saving tissue of the vagina, this tissue that was there originally. I don't think it amounts to so much as some people seem to think it does. I never hesitate to remove tissue that I can not find a convenient place for in an operation. Redundant tissue, prolapsed tissue, provided of course, that I am not pulling the uterus down at that place—making tension of that character—I remove. Where there is cystocele with extensive laceration of the perineum, I never hesitate to take off the mucous membrane of the vagina high up, and I think the parts adapt themselves after the operation.

*Dr. Coles.*—You mean rectocele?

*Dr. Hulbert.*—Yes; so there is practically a normal state of affairs brought about by the changes which occur after the operation.

*Dr. Gehrung.*—I thing in all probability the subject spoken of by Dr. Hulbert the probable disappearance of the useless tissue which has no function, is a good one. I have had a number of cases

which will illustrate that. For instance I have had two cases of double vagina with double uteri, and in both cases I have split the septum, which was in one case as thick as my little finger from the vulva to Douglas' cul-de-sac, without removing any substance, and after a few months time there was scarcely a perceptible cicatrix to be found either on the anterior or posterior wall of the vagina. Had there been any irregularity left, I should have considered it rather a bad result, because these irregularities have a tendency to keep the vagina more or less unclean. Doctor Glasgow claims that the elevation of the extra ridge is a support to the neck of the womb. Now if so it will have the tendency to obstruct the mouth of the womb and form a sac in which secretions will accumulate; therefore, I suggest that it would be better to make the ridge conical, broader below and running into a point near the cervix so as not to obstruct the secretions coming from the womb.

*Dr. Engelmann.*—I do not think there is any doubt about this ridge atrophying.

*Dr. Glasgow.*—Both Dr. Engelmann and Dr. Gehrung speak positively about the atrophy of this ridge. We know there are some things that do not atrophy although they are not put to use. It may be so with this ridge. Then the case which Dr. Moses reports shows that the ridge does not prove an obstruction.

*Dr. Gehrung.*—Doctor Glasgow spoke of the external sutures causing pain, so that they had to be removed prematurely. I many years ago made a little change in the sutures, by placing in the angle of exit of the wires a piece of lead wire longitudinally, so that in twisting the wires, they would ride on the lead wire and thereby be prevented from sinking into the skin, could be removed with great ease. This causes a linear approximation of the wound.

*Dr. Glasgow.*—I do not understand that.

*Dr. Engelmann.*—It is the same old quill.

*Dr. Glasgow.*—Extending across the cut?

*Dr. Engelmann.*—No, on each side.

*Dr. Prewitt.*—Two or three days ago I operated upon a case of laceration of the cervix that was peculiar to me. I will say that the cervix was hard, everted, and as usual the upper lip showed very well, but the lower lip was turned down, and when you looked into the vagina you could scarcely see them; there was a sort of



hood in the vaginal wall that came up over it, as it were, and when you pulled it out or down in that pocket the vaginal wall seemed to be attached almost along the lip of the cervix; the result was that when I came to operate and brought these everted lips together, and wished to pass my stitches, I was apprehensive all the time that I would pass through the attachment of the vaginal wall and into the peritoneal cavity, because that would seem to be the very low attachment of the vaginal wall, to the posterior lip especially, not so much the anterior, and I don't know whether I passed through it or not. I passed the stitches and took the chances. The patient is doing very well. I operated on Tuesday and she has not had any unpleasant symptom whatever.

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#### ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

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Stated Meeting, April 19, 1887 Dr. Prewitt in the Chair.

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#### OVARIOTOMIES.

*Dr. Prewitt* said that in 1886, he removed a tumor of the left ovary from a young lady. She recovered with only some disturbance by the formation of abscesses along some of the wire sutures which, although they had been put in carbolic acid, had not been rubbed off, and probably were not as thoroughly aseptic as they should have been; there was considerable fever, but she recovered without any serious symptoms otherwise. Last July or August the parties wrote that there was another tumor in the abdomen, which he was rather loath to believe; but a physician in the town examined the patient and said there certainly was another tumor. She came to the city again in January of the present year with quite a large tumor in the abdomen. In the line of the first incision there was a nodule nearly as large as a hen's egg in the abdominal wall; and upon making a digital examination in the vagina there was found another nodule in the roof of the vagina posterior to the uterus, which seemed to be fixed. The tumor seemed to be partly cystic and partly solid. That portion which lay to the left seemed to be very firm and resistant, as though it was solid, while the portion lying to the right was evidently cystic. Taking all the conditions into consideration, it was a very unfavorable case for

operation. That nodule in the region of Douglas' cul-de-sac, in the vaginal wall did not seem to be inside the abdominal cavity, but in the tissues of the roof of the vagina, which led him to suspect that it might be a sarcomatous growth, and the outlook was not very favorable. He proposed an exploratory laparotomy to remove the tumor if it proved removable, and if not to close up the abdominal cavity. She consented to this. The tumor proved to be a multilocular cyst; the mass over to the right, which seemed to be hard, firm and resistant, was in reality a smaller cyst, so tense that it gave the impression of solidity. He removed the tumor, and the patient recovered without any bad symptoms. The nodule in the vaginal wall remained just as it was before. Since the operation in January she has had menstrual molimina, at least an attempt at menstruation, judging from the symptoms, but no actual appearance of menstrual flow. There was a good deal of pain, each time at the proper interval. Her health was not very good, and she suffered a good deal, seemingly, from a neuralgic trouble. A letter from her physician, yesterday, states that her health has very much improved; that these neuralgic pains have disappeared, and that she is now doing well. Dr. Prewitt then exhibited the last cyst removed.

*Dr. Post* asked as to the suppuration along the line of the sutures; whether the condition of the woman probably had anything to do with the formation of pus, or if it was some local effect of the stitch; whether it is a usual thing to have suppuration following operations where the condition of the patient is bad, or if it is an evidence of poisoning or mistake in the operation.

*Dr. Prewitt* thought in this case it was due to the condition of the sutures. If it had been due to the condition of the patient, the trouble would probably have occurred about the pedicle and the sutures applied there. He attributed the suppuration in this case to the fact that the wire sutures had not been properly prepared by his assistant. They had been put in carbolic acid solution but probably had not been properly cleansed. In the second operation he used aseptic silk, and there was no suppuration along the line of the sutures.

Still her condition was better in the second operation than in the first. In answer to a question of *Dr. Post* he said further that the ligature of the pedicle was silk which had been kept in a carbolic acid solution for a considerable while.

In another ovariectomy about ten days or two weeks ago, the uterus was absolutely fixed, being evidently connected with the tumor. The tumor was not very movable, and it seemed probable that it was a case where the tumor could not be removed. He proposed in that case also an exploratory laparotomy to which the patient consented. On opening the abdomen the tumor was found adherent to the uterus. It had a very broad base, rising from the left ovary and extending around along the brim of the pelvis, nearly to the promontory of the sacrum. The sac contents were very dark: in fact it was full of disorganized blood. There was no pedicle, and it was with the utmost difficulty that he could get the ligature below the base of it, and in fact when he applied the ligatures and attempted to cut off the cyst, he cut off a part of the cyst wall with it, as also some of the stitches which he had applied. He tied three considerable vessels near the uterus. The bowel was adherent to the side of the cyst for some considerable distance, with old adhesions, which he had to dissect off, and they were so firm that he had to use the scissors considerable. The attachment to the uterus was not so firm. He could separate it with his finger very readily, and by tying some little vessels controlled the bleeding. But in cutting the cyst some of the dark fluid escaped into the abdominal cavity. After dissecting out the pieces of the cyst left in the pedicle, he found that some of the sutures went through it, and it was so well down along the brim of the pelvis that he was apprehensive that he would pass his needle through the iliac vein or something of that kind in applying the sutures. It was with the greatest difficulty that he could tie them. After he had applied all the ligatures and dissected out all he could find of the cyst wall, the position of the sutures was such that one could not see the point from which the tumor was removed in looking down into the pelvis. He washed out the abdominal cavity with a warm solution of bichloride of mercury one to four-thousand, flooded the abdominal cavity and put in a drainage tube. During the first twenty-four hours quite a large amount of fluid drained out. After that not much. On the third day he removed the drainage tube, finding in the bottom of it some clots of blood. The patient did very well for about eighth days, having a temperature of perhaps  $101^{\circ}$ ; about the eighth day it came up to  $104^{\circ}$ . There was no tympanites, no pain, nothing to indicate the cause of the sudden rise of temperature. By the next morning it had gone down consider-



able. Her pulse went up to 158 or 160. He gave her large doses of quinine per rectum. She never had any sick stomach and complained of no pain except some burning in the abdomen, not what might be termed pain; there was never the slightest tympanites; her temperature went down to about  $100^{\circ}$ , and on day before yesterday it got up to  $103^{\circ}$  again. This morning it was down to  $99^{\circ}$ ; her pulse 96 so at the present time her symptoms are more favorable. On removing the stitches the day before yesterday, he noticed a little suppuration along one of them. He had taken the precaution to have the wire wiped off before it was drawn through; still there may have been some trouble; there was a drop of pus along one of the stitches, only very slight. Another time he would use silk rather than wire. There was quite a broad tract where the tumor had been taken out, which was left uncovered, and he simply passed stitches through and endeavored to draw it together to cover that space and control the bleeding. He had tied all the large vessels and although it was a long, tedious operation, the woman bore it admirably; there was very little shock, and she did very well for the first eight days: she was almost beyond the danger line when this sudden rise in temperature supervened. On examination *per vaginam*; there was very little tenderness on the left side of the uterus; on the right side where there was no cutting there was more tenderness.

#### FRACTURED CLAVICLE—DEFORMITY.

*Dr. Prewitt* said that a few days before he had seen an extraordinary deformity consequent upon fracture of the clavicle. A young man had received an injury which caused concussion of the brain and at the same time a fracture of the clavicle. His condition was so serious that little attention was paid to the fracture of the clavicle; it was supposed that he must die. In consequence there was an overriding of the inner fragment to such an extent as he had never seen before in any case, and a sharp point projected upward in the supra-clavicular fossa almost like a needle point. The surface of the skin was red, and looked as if it was ready to perforate at any time. He cut down upon the bone, peeling off the periosteum and with a pair of bone pliers cut off the fragment. He then closed it up putting on an antiseptic dressing,

## RUPTURE OF OPTIC NERVE.

*Dr. Post* gave a brief report of a case which shows the great amount of injury which one can receive and yet not sustain any serious secondary results. The accident occurred during the warm weather last summer. A negro boy was sent to his office by *Dr. Tupper*. The left eye was protruding somewhat from the lids; which were forced open, and considerable blood had oozed out and coagulated; the lids were both turned out; and there was a tear which branched in two directions, one running parallel with the lid margin, the other running downward and inward. This colored boy had been engaged in some romping play with his friends, and in dodging around a carriage he struck his cheek at this point—just below the eye, against the leather fender over the wheel. The blow was quite severe, and the eye was in such condition that it was a question whether immediate enucleation should not be performed. The ball seemed to be projecting out from the lids. Having applied cocaine on the part, when the parts were under its influence he cut the conjunctiva from about the cornea; and as the boy did not complain of pain he went on and cut one muscle after another until he had all the muscles removed; and as he still seemed to suffer no pain he took hold of the globe with the forceps and pulled to see how much injury had been done and whether he would have to cut the optic nerve, and was very much surprised to find that the whole mass came away, about two inches of the optic nerve coming away with the globe. The blow had been so great as to rupture the nerve at or near the chiasm. As rupture of the optic nerve is occasionally in an enucleation followed by meningitis and death, the doctor was very anxious lest his patient should die. Having removed the globe he sewed up the tears and got things in nice position, and then kept cold water dressings on the eye and gave him a little cathartic followed by quinine; and he recovered without any bad symptoms. He had no rise in temperature, no evidence of general disturbance, although, the boy's room was in the loft over the stable; it was in the hottest weather of the summer, and the stable was a frame building, and the heat was excessive in his room.

# NINTH INTERNATIONAL MEDICAL CONGRESS, HELD AT WASHINGTON, D. C., SEPT. 5, 6, 7, 8, 9, & 10, 1887.

(From advance slips supplied by the MEDICAL RECORD, of New York, from its special report.)

## MONDAY, SEPTEMBER 5—FIRST DAY.

The Congress assembled in Albaugh's Opera House, and was formally opened at 11 A. M. by His Excellency, Grover Cleveland, President of the United States, who said: "I feel that the country should be congratulated to-day upon the presence at our capital of so many of our own citizens, and those representing foreign countries who have distinguished themselves in the science of medicine, and are devoted to its further progress. My duty in this connection is a very pleasant and a very brief one. It is simply to declare that the Ninth International Medical Congress is now open for organization and for the transaction of business."

*Dr. Henry H. Smith*, of Philadelphia, Chairman of the Executive Committee, next named the following

### OFFICERS OF THE CONGRESS.

President—Nathan Smith Davis, M. D. LL. D., of Chicago, Ill. The list of Vice-Presidents included representative men from fifteen different countries:

Secretary General, John B. Hamilton, M. D., Washington, D. C.; Treasurer, E. S. F. Arnold, M. D., M. R. C. S., Newport, R. I.; Chairman Finance Committee, Richard J. Dunglison, M. D., Philadelphia, Pa.; Chairman Executive Committee, Henry H. Smith, M. D., LL. D., Philadelphia, Pa.; Chairman Committee of Arrangements, A. Y. P. Garnett, M. D., Washington, D. C.

### PRESIDENTS OF SECTIONS.

Section I. General Medicine, A. B. Arnold, M. D., Baltimore, Md.; Section II. General Surgery, W. T. Briggs, M. D., Nashville, Tenn.; Section III. Military and Naval Surgery and Medicine, H. H. Smith, M. D., LL. D., Philadelphia, Pa.; Section IV. Obstetrics, De L. Miller, M. D., Ph. D., Chicago, Ill.; Section V. Gynecology, H. O. Marcy, M. D., Boston, Mass.; Section VI. Therapeutics and Materia Medica, T. Green, M. D., LL. D., Easton, Pa.; Section VII. Anatomy, W. H. Pancoast, M. D., Philadelphia, Pa.; Section VIII. Physiology, J. H. Callender, M. D., Nashville, Tenn.; Section IX. Pathology, A. B. Palmer, M. D., LL. D., Ann Arbor, Mich.; Sec-



tion X. Diseases of Children, J. L. Smith, M.D., New York. N. Y.; Section XI. Ophthalmology, J. J. Chisolm, M. D., Baltimore, Md.; Section XII. Otology, S. J. Jones, M.D., LL.D., Chicago, Ill.; Section XIII. Laryngology, W. H. Daly, M.D., Pittsburg Pa.; Section XIV. Dermatology and Syphilography, A. R. Robinson, M.D., New York, N. Y.; Section XV. Public and International Hygiene, J. Jones, M. D., New Orleans, La.; Section XVI. Climatology and Demography, A. L. Gihon, M.D., U. S. Navy; Section XVII. Psychological Medicine and Nervous Diseases, J. B. Andrews, M. D., Buffalo, N. Y.; Section XVIII. Dental and Oral Surgery, J. Taft, M. D., Cincinnati, O.

#### REPORT OF THE SECRETARY-GENERAL.

*Dr. Hamilton* said: It is now a matter of history that in May, 1884, the American Medical Association met in this capital, and passed a resolution inviting the Congress to honor America by holding its next session in the United States, and at a meeting in Copenhagen, in August, 1884, when the question came up for disposition, Washington was selected. The committee, having borne the invitation and secured its acceptance, returned home, and immediately began the work of organization, and shortly before the meeting of the American Medical Association in New Orleans, in May, 1885, they completed the preliminary organization. But it transpired that this committee were unable to frame an organization satisfactory to the majority of the members of the Association, and after some discussion, a resolution was adopted which authorized the appointment of additional members of the committee, and, in accordance with our American system of representation, the committee consisted of one member from each State and Territory of the Union, to which was added one representative from each of the three public medical services, and these new members were elected by the State and Territorial delegations. The enlarged committee met in Chicago a few weeks after the New Orleans meeting of the American Medical Association, and several of the members of the first committee were present and acted harmoniously with the committee. In a short time, however, each of the original committee had withdrawn, and the management was thus deprived of their experienced and valued services. The committee have, therefore, had to contend against more than the ordinary difficulties attending so great an undertaking, and its present success is due entirely to the zeal and energy of its chairman, Profes-

sor H. H. Smith, of Philadelphia, and unflagging interest and industry of the remaining members of the committee.

*Dr. A. Y. P. Garnett*, of Washington, D. C., Chairman of the Local Committee of Arrangements, then announced the arrangements for the social entertainment of the members of the Congress and their families.

#### THE ADDRESS OF WELCOME

was delivered by Hon. Thomas F. Bayard, Secretary of State. In the name of his fellow countrymen he expressed gratification at the visit of the delegates to Washington. The world is becoming acquainted and international intimacy is growing; a spirit of common brotherhood is increasing so that the word "stranger" will soon be obliterated from the vocabulary of civilization. If letters constitute a republic, science is a democracy. In the United States individual enterprise has produced great scientific institutions without the aid or interference of government. The proceedings of the Congress will be watched with interest by the sixty million people of this country.

Responses were made by Dr. William H. Lloyd, of the Royal Navy; Dr. Leon Le Fort, of France; Professor Unna, of Germany; Professor Semmola, of Italy; Dr. Charles Reyher, of Russia.

Dr. Lewis A. Sayre, of New York, occupied the chair during the delivery of

#### THE ADDRESS OF THE PRESIDENT OF THE CONGRESS.

*Dr. Davis* began by paying an eloquent tribute to the memory of Dr. Austin Flint, and thanking the Congress for the honor conferred upon him.

Regarding the broad scope of Medical science he said:

The living human body, the chief object of your solicitude, not only combines in itself the greatest number of elementary substances and the most numerous organs and varied functions, so attuned to harmonious action as to illustrate the operation of every law of physics, every known force in nature, and every step in the developement of living matter from the simple aggregation of protoplasm constituting the germinal cell to the full-grown man, but it is placed in appreciable and important relations with the material objects and immaterial forces existing in the world in which he lives.

Hence a complete study of the living man, in health and disease, involves a thorough study, not only of his structure and functions,

but more or less of every element and force entering into the earth, the air, and the water, with which he stands in constant relation.

The medical science of to-day, therefore, embraces not only a knowledge of the living man, but also of such facts, principles, and materials gathered from every other department of human knowledge as may increase your resources for preventing or alleviating his suffering and of prolonging his life.

The time has been when medical studies embraced little less than the fanciful theories and arbitrary dogmas of a few leading minds, each of which became for the time the founder of a sect or so-called school of medicine, with his disciples more or less numerous. But with the development of general and analytical chemistry, of the several departments of natural science, of a more practical knowledge of physics, and the adoption of inductive processes of reasoning, the age of theoretical dogmas and of medical sects blindly following some more plausible leader passed away, leaving but an *infinitesimal* shadow yet visible on the medical horizon.

The address closed with an appeal for the collective investigation of the phenomena of disease.

TUESDAY, SEPTEMBER 6—SECOND DAY.

The Congress was called to order at 10 A.M. by the President.

*Dr. Austin Flint, LL. D.*, of New York, delivered a general address on

FEVER, ITS CAUSES MECHANISM, AND RATIONAL TREATMENT.

After discussing the subject of animal heat, the following conclusions were reached by the author:

1. Fevers, especially those belonging to the class of acute diseases, are self-limited in their duration, and are due each one to a special cause, a micro-organism, the operation of which ceases after the lapse of a certain time.

2. We are as yet unable to destroy directly the morbid organisms which give rise to continued fevers; and we must be content, for the present, to moderate their action and to sustain the powers of resistance of patients.

3. The production of animal heat involves oxidation of parts of the organism or of articles of food, represented in the formation and discharge of nitrogenized excrementitious matters, carbonic acid and water.

4. As regards its relations to general nutrition and the produc-



tion of animal heat, water formed in the body by a process of oxidation is to be counted as an excrementitious principle.

5. Fever, as observed in the so-called essential fever, may be defined as a condition of excessive production of heat, involving defective nutrition or inanition, an excessive production and discharge of nitrogenized excrementitious matters and carbonic acid, with waste and degeneration of the tissues, and partial or complete suppression of the production and discharge of water.

6. Aside from the influence of complications and accidents, the ataxic symptoms in fevers, the intensity and persistence of which endanger life, are secondary to the fever, and are usually proportionate to the elevation of temperature. These symptoms are ameliorated by measures of treatment directed to a reduction of the general temperature of the body.

7. The abstraction of heat by external cold and the reduction of temperature by antipyretics administered internally, without affecting the special cause of the fever, improve the symptoms which are secondary to the pyrexia.

8. In health, during a period of inanition, the consumption of the tissues in the production of animal heat is in a measure saved by an increased production and excretion of water.

9. In fever, the effects of inanition, manifested by destruction and degeneration of tissues, are intensified by a deficient formation and excretion of water.

10. Alimentation in fever, the object of which is to retard and repair the destruction and degeneration of tissues and organs, is difficult mainly on account of derangements of the digestive organs; and this difficulty is to be met by the administration of articles of food easily digested, or of articles in which the processes of digestion have been begun or are partly accomplished.

11. In the introduction of hydrocarbons, which are important factors in the production of animal heat, alcohol presents a form of hydrocarbon which is promptly oxidized, and in which absorption can take place without preparation by digestion.

12. Precisely in so far as it is oxidized in the body, alcohol furnishes matter which is consumed in the excessive production of heat in fever, and saves destruction and degeneration of tissue.

13. The introduction of matters consumed in the production of heat in fever diminishes, rather than increases, the intensity of the pyrexia.

14. As the oxidation of alcohol necessarily involves the formation of water and limits the destruction of tissue, its action in fever tends to restore the normal processes of heat-production, in which the formation of water plays an important part.

15. The great objects in the treatment of fever itself are to limit and reduce the pyrexia by direct and indirect means; to limit and repair destruction and degeneration of tissues and organs by alimentation; to provide matters for consumption in the abnormal production of heat, and thus to place the system in the most favorable condition for recuperation after the disease shall have run its course.

#### WEDNESDAY, SEPTEMBER 7—THIRD DAY.

*Dr. Durante*, of Rome, Italy, one of the Vice-Presidents, occupied the Chair.

*Dr. Mariano Semmola*, of Naples, Italy, delivered a general address on

#### BACTERIOLOGY AND ITS THERAPEUTIC RELATIONS.

The object of medicine is to cure diseases. To cure diseases we must know the causes that produce them. The external causes are visible and tangible, but to discover the internal, invisible causes is the aim of medical science. To solve this problem we must employ the true method of solving all problems—the experimental method. Doctors lost themselves in fantastic speculations before this method was known. The wonderful progress of physiology has been made in the light of experimental methods. When morbid conditions had been studied instead of going on with the same careful and slow research, physicians wanted to hurry on, because they wished simply to cure the sick. To apply the experimental method and, at the same time, go fast, is, in the nature of things, impossible. Thus it happened while physicians were making experiments in the laboratory, instead of having patience to master their studies, they came at once to a conclusion. New hypotheses had to be made, and without knowing it they began again the same errors that had characterized the medicine of an earlier day. New systems thus came into the field, that were the opposite of the experimental method. If medicine is to progress and be a science, it must not leave the experimental method, otherwise there will be nothing but renovations of error and loss of time. The error of the day is bacteriology considered as the key to all pathology. Bacteriology should be studied, because it teaches what is in the

microscopical world, of which we had never dreamed the existence, a world in which man lives, and which is filled with enemies of mankind. We drink millions of microbes in water, and respire millions in the air. Sometimes these microbes affect us—perhaps killing in a few hours.

When we strive to cure the sick, we must proceed cautiously, because, before there has been a careful demonstration, if we attempt to deduce a remedy, there is danger of doing harm to the sick instead of curing them. This is the great harm modern bacteriology does. Doctors concluded at once that microbes were the cause of disease, whereas, in many cases, microbes are but effects of disease. We ought to reproduce the disease artificially by a microbe before concluding that it is the cause. The experiments made have not given any satisfactory results, except in carbuncle and tuberculosis. To conclude hastily that this or that microbe is the cause of any disease, is but to ignore or set aside the experimental method. The demonstration which the experimental method demands in this case would be complicated, because we would not only have to know that the microbe existed but we would have to know what was the condition of the blood necessary to the culture of that particular microbe, and science tells us that, for the present, this is a problem we cannot solve.

We know very little of the normal condition of the blood, and biological chemistry is still in its infancy. Man cannot separate himself from these millions of parasites among whom he lives. That bacteriology may be a guide in the cure of disease, we must not only learn all we can of the microbe itself, but, more important than all, must ascertain all that is possible of the conditions of the field of culture. The science of the present knows nothing of the conditions of these fields of culture in living organisms. It is thus evident that in the present condition of bacteriology it cannot be taken as a guide for the treatment of internal diseases. The older schools of medicine spoke of organic dispositions, or tendency to such and such a disease. This expression had no meaning, but it expressed the fact. When bacteriology speaks of a need for a special field of culture it says the same thing, because we do not know of what the field of culture, consists. Therefore, this cannot be called a science, because a science is never composed of unknown things; it goes from the known to the unknown. If a man supposes a fact instead of demonstrating it, the phenomena of nature



are not reproduced. When he resorts to hypotheses the power of man disappears. If nature's laws are not respected, the telephone does not work, the electric light does not flash, the steam-engine stops. The doctor, then, is the only one who pretends to become the master of nature without knowing her laws. Referring again to the failure of medicine to follow up a discovery in the scientific way with thorough research and demonstration, and its tendency to accept conclusions quickly, Professor Semmola said that modern bacteriology may lead the way to the most fruitful field of inquiry in the future, but for the present it has produced no practical results in the cure of internal diseases. It has not, he claimed, been demonstrated in what measure microbes are the causes of disease. He therefore hoped that the younger generation would continue experimental researches with the thoroughness of method which the great masters have transmitted to us. They must renounce their preconceived ideas in medicine, and interrogate nature without torturing her. Scientific independence must be preserved. They must not proceed without measuring their steps. He trusted that his desire for scientific independence in such researches would be echoed in this land of independence.

THURSDAY, SEPTEMBER 8TH—FOURTH DAY.

*Dr. A. Y. P. Garnett*, of Washington, offered the following resolution, which was unanimously adopted:

*Whereas*, It is proposed to hold at the City of Washington, in 1892, an international celebration in honor of the 400th anniversary of the discovery of America by Christopher Columbus, and an exposition of the history, arts, and industries of all nations;

*Resolved*, That the International Medical Congress favors this patriotic movement, and commends it to the nations of the world.

*Dr. A. L. Gihon*, U. S. Navy, offered the following resolution, which was adopted at the general session on Wednesday:

*Resolved*, That the President of the Congress be authorized to appoint a committee, to consist of an equal number of members from each nationality represented in the Congress, for the purpose of selecting the place of the meeting of the Tenth International Medical Congress, to be held in the year 1890; which committee shall report on Friday morning, immediately before the address of Dr. Brandford.

The following committee was appointed on Thursday to name the next place of meeting of the Congress:

Argentine Republic, Dr. Villa; Austria-Hungary, Dr. Faskas; Belgium, Dr. Gervais; Brazil, Dr. Freire; China, Dr. Boone; France, Dr. Landolt; German Empire, Dr. Martin; Great Britain, Dr. Pavy; Italy, Dr. Semmola; Japan, Dr. Saiga; Mexico, Dr. Alvarado; Russia, Dr. Reyher; Spain, Dr. Lalearda; Sweden and Norway, Dr. Tillman; Switzerland, Dr. Cordes; Turkey, Dr. Post; United States, Dr. A. L. Gihon; Egypt, Dr. Grant, (Bey).

*Dr. P. G. Unna*, of Hamburg, Germany, then delivered a general address in German on the

#### RELATIONS OF DERMATOLOGY TO GENERAL MEDICINE.

He endeavored to prove that every general practitioner has the greatest interest that dermatology should be more deeply and extensively studied. Dermatology, as a special branch, is still young, and not yet passed the state of formation. The immense difficulties in the way of the study of diseases of the skin, which have up to this time disturbed its continuous development, are in great part well founded, as well in the external position of this organ as in its complicated structure. The author demonstrated these complications in detail, showed the differences in the appearance of the symptoms according to regional differences of the skin, the changes in symptoms in the course of the development of skin diseases, the varieties produced by external agents, the influence of climate, season, nature of countries, of races, sex, and age. Among the external agents the parasites, according to our present knowledge, occupy the most prominent place.

These difficulties will in future be overcome only by minute analysis of each of the several symptoms of skin diseases. All progress in this direction will be of the greatest value for general pathology and therapeutics, because these facts are proved in the human tissue by means of the naked eye. Dermatology, studied properly, will advance all other parts of medicine—internal medicine as well as surgery—occupying a middle ground between them. Unna recommends, in place of experiments on animals for pathological and therapeutical experiments, to use the human skin, and showed by several examples how this method has led already to the knowledge of new facts. The endowment of new chairs and of separate private laboratories is not sufficient for a thorough investigation of skin diseases. Unna recommends the establishment of a central institute, where noted scientists work together, where all means and methods of study are condensed. Then dermatology

will be raised to the rank of one of our most important specialities in medicine, and it will contribute largely to the progress of knowledge in all branches. Finally, the speaker, expressed the hope that the United States, always so liberal in the promotion of science, will be the first to develop this ideal.

FRIDAY, SEPTEMBER 9—FIFTH DAY.

Secretary-General, Hamilton, reported that the committee on time and place for holding

THE TENTH INTERNATIONAL CONGRESS,

had recommended Berlin, Germany, in the year 1890, which was unanimously adopted.

*Dr. Hamilton* also reported resolutions adopted by the Section in Military and Naval Surgery and Medicine, recommending  
UNIFORMITY OF THE REPORTS OF SICK AND WOUNDED IN ALL THE

ARMIES OF THE WORLD;

also as having been adopted by the Sections in Public and International Hygiene, a resolution with regard to the terrible accidents on railroads, and those due to the habitual neglect of the most elementary sanitary laws, and urging necessary reforms; also recommending the co-operative investigation of the results obtained by yellow fever inoculations as a protective against that disease, and that adequate appropriations by the governments represented in this Congress be made for that purpose.

*G. Fielding Blandford, M. D., Oxon, F. R. C. P.*, London, delivered an address on

THE TREATMENT OF RECENT CASES OF INSANITY IN ASYLUMS AND  
IN PRIVATE HOUSES.

The inquiry was limited to the treatment of recent insanity only, without reference to the care and maintenance of the chronic insane. Recent insanity in very many cases is a curable disorder. For the great majority of patients asylum treatment is the only available method, but there is a certain proportion of insane persons whom it is important to treat, if it be possible, outside an asylum, to save them from the stigma of having been the inmates of one, as this may seriously damage their future prospects and position.

For the treatment of all patients in private houses one thing is absolutely requisite, viz., funds. Unless proper medical supervision, proper attendants, and proper quarters can be provided and paid for, to an asylum the sufferer should go. Friends are often wil-



ling to make a sacrifice, and profess they will pay anything. But this may mean a scanty and poverty stricken supply of what is necessary, the funds become exhausted before recovery takes place, and then an asylum is necessary, and money is wasted which could hardly be spared. Where means are slender and the duration of the illness doubtful, it is better to send the patient to an asylum at once, and save the money for the convalescent stage. Treatment in a patient's own house is rarely successful, therefore the alternatives are an asylum, or a house adapted to the requirements of the case.

SATURDAY, SEPTEMBER 10—SIXTH DAY—FINAL SESSION.

The Secretary General reported resolutions from the Section in Climatology, concerning the establishing of a bureau of vital statistics: from the Section in Military and Naval Surgery and Medicine, with regard to the prohibition of the use of explosive balls in warfare; and from the Section in Public and International Hygiene, with reference to the necessity of teaching hygiene in the public schools.

*Dr. Graily Hewitt*, of London, spoke on the part of the foreign members, and after making a few preliminary remarks, in which he conveyed their grateful thanks for the attention which the Congress had received, and their high appreciation of the success which had attended its work, offered a resolution of thanks and compliment to the gentlemen of the committee whose thoughtful provision for the comfort and convenience of the guests from abroad had made the Congress such a success. Others of the foreign guests spoke in the highest terms of satisfaction and gratification.

The President of the Congress, *Dr. N. S. Davis*, in the name of the medical profession of the United States, thanked the foreign members for their sympathy and their assistance in the work of the Congress, in which representatives from every State in the Union had been present to greet them, and then declared the Ninth International Medical Congress adjourned.

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SECTION IN GENERAL SURGERY.

*Wm. T. Briggs, M. D.*, Nashville, Tenn., president.

*Secretaries*—*Dr. Dudley P. Allen*, Cleveland, O.; *Dr. Karl Mayde*, Vienna, Austria; *Dr. J. R. Weist*, Richmond, Ind.; *Dr. Arthur H. Wilson*, Boston, Mass.

## MONDAY, SEPTEMBER 5—FIRST DAY—AFTERNOON SESSION.

The afternoon session was devoted to the consideration of

## ABDOMINAL SURGERY.

The first paper on this subject was read by Dr. Charles T. Parkes, of Chicago, Ill.

The subject of gunshot wounds of the abdomen has of recent years been more generally understood. Up to 1885 the profession had not looked it in the face; but a few years ago surgeons were opposed to any interference. In 1884 the speaker read a paper upon this subject before the American Medical Association, since which time 36 cases have been reported, recovery taking place in 9 of them, and since coming here he had heard of two more, making 38 reported cases and 11 recoveries. Operation in these cases had been performed under all sorts of surroundings, and the cases were not chosen ones. The writer considered that every case should be reported, whether resulting in recovery or death, in order to secure correct statistics.

The diagnosis with the abdomen unopened is at best uncertain, but when to open the future must decide. The writer considered that after an operation had been decided upon the incision should be made in the median line, as giving greater access to all parts of the abdominal cavity. If the ball passed up through the diaphragm he considered there was little to be done. Shock he considered was no certain indication of perforation having taken place, and it was a very difficult matter to know when to decline to operate, as many cases that have died have revealed at the post-mortem that the patient could have been saved had an operation been performed. The writer quoted two instances.

The next paper was by Dr. Nicholas Senn, of Milwaukee, Wis., and entitled

AN EXPERIMENTAL CONTRIBUTION TO INTESTINAL SURGERY, WITH  
SPECIAL REFERENCE TO THE TREATMENT OF INTESTINAL  
OBSTRUCTION.

ARTIFICIAL INTESTINAL STENOSIS.—(a) Partial enterectomy and longitudinal suturing of wound. Traumatic stenosis from this cause becomes a source of danger from obstruction or perforation in all cases where the lumen of the bowel is reduced more than one-half in size. Longitudinal suturing of wounds on the mesenteric side of the intestine should never be practised, as such a procedure is invariably followed by gangrene and perforation by inter-

cepting the vascular supply to the portion of bowel which corresponds to the mesenteric defect.

(b) Circular constriction of intestine. The immediate cause of gangrene in circular constriction of a loop of intestine is due to obstruction of the venous circulation, and takes place first at a point most remote from the cause of the obstruction.

2. FLEXION.—(a) Flexion produced by partial enterectomy and transverse suturing of wound. On the convex surface of the bowel a defect an inch in width can be closed by transverse suturing without causing obstruction by flexion. In such cases the stenosis is subsequently corrected by a compensating bulging, or dilatation, of the mesenteric side of the bowel. Closing a wound of such dimensions on the mesenteric side of the bowel by transverse suturing may give rise to intestinal obstruction by flexion, and to gangrene and perforation by seriously impairing the arterial supply to, and venous return from, the portion of bowel corresponding with the mesenteric defect.

(b) Flexion caused by inflammatory and other extrinsic causes gives rise to intestinal obstruction only in case the functional capacity of the flexed portion of the bowel has been diminished or suspended by the causes which have produced the flexion, or by subsequent causes independently of the flexion.

3. VOLVULUS.—As in flexion a volvulus gives rise to symptoms of obstruction when the causes which have given rise to a rotation upon its axis of a loop of bowel have at the same time produced an impairment or suspension of peristalsis in the portion of the bowel which constitutes the volvulus, or when a diminution or suspension of peristalsis follows in consequence of the rotation.

4. INVAGINATION.—Accumulation of intestinal contents above the seat of invagination is one of the most important factors which prevents spontaneous disinvagination, and which determines gangrene of the intussusciens.

Spontaneous reduction is not more frequent in ascending than descending invagination.

The immediate cause of gangrene of the intussusciens is obstruction to the return of venous blood by constriction at the neck of the intussusciens. Ileo-cecal invagination, when recent, can frequently be reduced by distention of the colon and rectum with water, but this method of reduction must be practised with great care and gentleness, as over-distention of the colon and rectum is



productive of multiple longitudinal lacerations of the peritoneal coat, an accident which is followed by the gravest consequences.

The competency of the ileo-cecal valve can only be overcome by over-distention of the cecum, and is effected by a mechanical separation of the margins of the valve; consequently it is imprudent to attempt treatment of intestinal obstruction beyond the ileo cecal valve by injections per rectum.

**ENTERECTOMY.**—Resection of more than six feet of the small intestine in dogs is uniformly fatal. The cause of death in such cases is always attributable to the immediate effects of the trauma. Resection of more than four feet of the small intestine in dogs is incompatible with normal digestion, absorption, and nutrition, and often results in death from marasmus.

In cases of extensive intestinal resection the remaining portion of the intestinal tract undergoes compensatory hypertrophy, which, macroscopically, is shown by thickening of the intestinal coats and increased vascularization.

**PHYSIOLOGICAL EXCLUSION.**—Physiological exclusion of an extensive portion of the intestinal tract does not impair digestion, absorption and nutrition as seriously as the removal of a similar portion by resection.

Fecal accumulation does not take place in the excluded portion of the intestinal canal.

The excluded portion of the bowel undergoes progressive atrophy.

**CIRCULAR ENTERORRHAPHY.**—A modification of Jobert's invagination-suture by lining the intussusceptum with a thin, flexible, rubber ring, and the substitution of catgut for silk sutures is preferable to Czerny-Lembert sutures.

The line of suturing on neck of intussusciens should be covered by a flap or graft of omentum in all cases of circular resection, as this procedure furnishes an additional protection against perforation.

In circular enterorrhaphy, continuity of the peritoneal surface should be secured where the mesentery is detached by uniting the peritoneum with a fine catgut suture before the bowel is united, as this modification of the ordinary method furnishes better security against perforation on the mesenteric side.

**INTESTINAL ANASTOMOSIS.**—The formation of a fistulous communication between the bowel above and below the

seat of obstruction should take the place of resection and circular enterorrhaphy in all cases where it is impossible or impracticable to remove the cause of obstruction, or where the pathological conditions which have given rise to the obstruction do not constitute an intrinsic source of danger. Gastro-enterostomy and jejuno-ileostomy should always be made by approximation with partially or completely decalcified, perforated bone-plates.

In making an intestinal anastomosis for obstructions in the cecum, or colon, the communication above and below the seat of obstruction can be established by apposition with decalcified perforated bone plates, or by lateral implantation of the ileum into the colon or rectum. An ileo-colostomy, or ileo rectostomy, by approximation with decalcified perforated bone-plates or lateral implantation, should be done in all cases of irreducible ileo-cecal invaginations where the local signs do not indicate the existence or occurrence of gangrene and perforation. In all cases of threatened gangrene and perforation the invaginated portion should be excised, both ends of the bowel closed, and the continuity of the intestinal canal restored by making an ileo-colostomy by approximation with perforated decalcified bone-plates, or by lateral implantation. The restoration of the continuity of the intestinal canal by perforated approximation-plates, or lateral implantation should be resorted to in all cases where circular enterorrhaphy is impossible on account of the difference in the size of the lumina of the two ends of the bowel.

In cases of multiple gunshot wounds of the intestines involving the lateral, or convex, side of the bowel, the formation of intestinal anastomosis by perforated decalcified bone-plates should be preferred to suturing, as this procedure is equally, if not more safe, and requires less time.

**ADHESION EXPERIMENTS.**—Definitive healing of an intestinal wound is only completed after the formation of a network of new vessels in the product of tissue-proliferation from the approximated serous surfaces. Under favorable circumstances quite firm adhesions are formed between the peritoneal surfaces within six to twelve hours which effectually resist the pressure from within outward. Scarification of the peritoneum at the seat of approximation hastens the formation of adhesions and the definitive healing of intestinal wounds.

Omental grafts, from one to two inches in width, and sufficiently long to completely encircle the bowel, retain their vitality, become firmly adherent in from twelve to eighteen hours, and are freely supplied with blood-vessels in from twenty-four to forty-eight hours. Omental transplantation, or omental grafting, should be done in every circular resection, or suturing of large intestinal wounds, as this procedure favors the healing of the visceral wound, and furnishes an additional protection against perforation.

The speaker presented some valuable specimens in which the operation had been performed on dogs; these specimens fully illustrated the value of the method advocated, and its entire feasibility, the union in some of these specimens being most remarkable. He called attention to its use in stenosis of the pyloric orifice. The duodenum, or the first convenient coil of intestine, being connected with the stomach by the method advocated, adhesions would form in from fourteen to twenty-four hours:

The adhesions in the specimens shown were wonderfully firm and strong.

TUESDAY, SEPTEMBER 6—SECOND DAY—MORNING SESSION.

*Dr. John Homans*, of Boston, read a paper entitled

THREE HUNDRED AND EIGHTY-FOUR LAPAROTOMIES FOR VARIOUS DISEASES.

In these cases he was in the habit of using drainage-tubes, these being cleansed once in about four hours, but he did not consider they drained the abdominal cavity, although Keith, of Edinburgh, has in his possession about two gallons of fluid secured in this manner from one patient. The greatest number of consecutive recoveries he had had was thirty-eight. He considered suppurative cysts of the ovary very rare, only one having come under his notice.

*Dr. I. M. Matthews*, of Louisville, Ky, read a paper entitled

"WHEN IS COLOTOMY JUSTIFIABLE?"

The writer had had twenty years' experience in rectal surgery, and he did not consider colotomy justifiable in cancerous disease of the rectum when located three inches from the anus; nor in stricture beyond the reach of the finger, nor in aneurism, nor in cases of specific origin. In most of these operations life was not prolonged. In congenital occlusion of the rectum he did not think it should be recommended, but that the perineal operation should be done. When the sigmoid flexure is blocked the speaker thought



it justifiable. The question then arises, what is to be done in the majority of cases for stricture? Linear rectomy, not colotomy.

*Dr. Samuel Benton*, of London, England, remarked that if he could get beyond the cancer he performed the operation, but if the growth was high up he performed colotomy. His last case lived sixteen months, he considered pain was relieved by colotomy. Cases of benign stricture he treated with electrolysis.

TUESDAY, SEPTEMBER 6—SECOND DAY—AFTERNOON SESSION.

*Dr. Donald Maclean*, of Detroit, Mich., read a paper on  
THREE CASES OF SURGICAL DISEASE OF THE KIDNEY WITH AN  
ACCOUNT OF OPERATIONS PERFORMED FOR THEIR RELIEF,  
THE COMPLICATIONS WHICH AROSE, AND THE RESULTS.

The next paper by Sir Thomas Longmore, of Netley, England, relative to

THE ADVISABILITY OF PROVIDING SOLDIERS IN SERVICE IN THE  
FIELD, WITH SOME FORM OF PRELIMINARY DRESSING FOR  
WOUNDS,

was read in abstract by his compatriot, Dr. Marston, of the British War Office: The custom of issuing "a first field dressing to soldiers in warfare," was first introduced in the British army, by general order, during the Crimean war, in the year 1854. Since that date they have been more or less used by the Continental armies, and they now form one item of the authorized field equipment of soldiers of the German army. The paper discussed the question of the materials most suitable for the purpose, and quoted the opinions of eminent military surgeons concerning their use. The paper was accompanied by a dressing designed by the author for this purpose. It possesses the advantage of being both complete and compact.

A translation in abstract, of a paper by Professor von Esmarch, of Kiel, Germany, upon the same subject, was read by Dr. M. J. Stern, of Philadelphia. The author described the requisite qualities of a dressing for the purpose, and advocated the use of antiseptic materials for its composition. A sample designed by the author in accordance with his views was exhibited.

In the discussion which followed, Dr. Reed Brockway Bontecou, of Troy, N. Y., strongly advocated the use of a preliminary dressing, and showed that even large wounds received on the battle-field could be to some extent freed from complications, if at once occluded by an antiseptic dressing.

The next paper, by Dr. Neuderfer, of the Austrian Army, entitled

ON THE PRESENT STANDPOINT OF ANTISEPSIS AND THE BEST  
MODE OF ITS APPLICATION IN WAR.

was read by title, after which an instructive paper, by Dr. B. A. Watson, of Jersey City, on

"THE PRIMARY TREATMENT OF GUNSHOT WOUNDS,"  
was read.

The next paper, by Dr. Eli A. Wood, of Pittsburg, Pa., entitled

THE IMPORTANCE OF THE GOVERNMENT SECURING AND PRE-  
SERVING VITAL STATISTICS IN THE ARMY AND NAVY FOR  
THE BENEFIT OF SUBSEQUENT APPLICANTS FOR  
PENSIONS

was read by the author, who emphasized the duty of the Government toward its soldiers and seamen, and alluded to the cost, trouble, and injustice toward applicants for pensions, where no complete and authentic records are preserved. He urged that the Pension Office should be so administered that not only individual interests should not suffer, but also to protect the Government against impostors. He enjoined military and naval surgeons to keep a full record of facts pertaining to the clinical history of all diseases and injuries incident to soldiers and seamen.

The last paper of the day, by Dr. Daniel Smith Lamb, of Washington, D. C., on

THE IMPORTANCE OF INTERNATIONAL REGULATIONS FOR THE MED-  
ICAL TREATMENT OF PRISONERS OF WAR,

treated this subject in an able manner.

WEDNESDAY, SEPTEMBER 7—THIRD DAY—MORNING SESSION.

*Dr. Richardson*, of Boston, read a paper on

GASTROTOMY FOR FOREIGN BODIES IN THE THROAT.

A patient (male), thirty-seven years of age, was presented to the section, from whom the doctor had removed a plate with four teeth attached from the lower portion of the esophagus, about one and one-half inches from the stomach-entrance, by performing gastrotomy. When first seen, the doctor could discover no obstruction, the man was, however, retained in the hospital. He was finally discharged apparently well, the pain at the point indicated by him having subsided, and he was able to eat his meals. Eleven months later he returned very much emaciated, the pain returning and

being much more severe ; gastrotomy was decided upon and the operation performed, the opening being made large enough to admit the hand ; the plate was then discovered in the location stated. Owing to its long retention a small abscess had formed there, which subsequently ruptured, the patient making a rapid recovery.

The speaker remarked that had he been certain the plate was there, he was positive he could have removed it with the forceps; but the difficulty lies in locating, and also the location of the cricoid cartilage and the cardiac opening. He had operated in sixty cases, and found the average distance from the incisors to the cardiac opening to be fourteen and one half inches; the longest was seventeen inches, and the shortest ten and one-half inches.

*Dr. F. S. Dennis*, of New York, presented some specimens of scarlet fever bacilli sent by Professor Lee, of Edinburgh. He then read a paper on

#### AMPUTATION OF THE HIP JOINT FOR SARCOMA.

*Dr. Carmody*, of New York, read a paper on

#### THE SURGICAL TREATMENT OF TRAUMATIC INSANITY BY MEANS OF THE TREPHINE.

The speaker reported the case of a young woman who was struck on the head with a brick, causing depression of the skull ; she had been trephined shortly after, but ten years later she began to exhibit symptoms of insanity ; trephining was suggested by the speaker, and the operation followed out, the space after the operation being three and a-half inches by two inches. No elevation of temperature followed, and at the end of twenty-one days she was perfectly rational ; the wound united by first intention.

*Sir James Grant* remarked that the case was an interesting one, and in his experience of brain surgery he had found that the lower type of brain would bear a fracture of the skull much better than those of an intellectual type. He quoted the case of a mill hand who fell out of a window and fractured his skull. The speaker was sent for, and on his arrival found the man walking about, and yet there was a depression in the back of the skull in which the finger could be inserted ; the brain he considered, became very sensitive in educated individuals.

#### THURSDAY, SEPTEMBER 8—FOURTH DAY—AFTERNOON SESSION.

*Dr. Robert Newman*, of New York, read a paper on

#### THE USE OF THE GALVANO-CAUTERY SOUND,



particularly in hypertrophy of the prostate gland. The frequency of application of the cautery, he stated, would depend much on the condition of the patient, but it averaged about from every three to six days; the cautery was not to be red hot, but simply to show a bright light. The advantages claimed are that there is no hemorrhage, the healing is more rapid, and there is no septicemia. Out of these cases ninety-one per cent are made comfortable and given a new lease of life.

*Dr. Carnochan*, of New York, presented a remarkable specimen of

BOXY UNION OF THE NECK OF THE FEMUR WITHIN THE CAPSULE, after fracture, occurring in a woman seventy years of age. As she had plenty of means she had every attention. She was kept in her fracture-bed for nine months, rest being the method of treatment. The value of the specimen was very great, especially in courts of law.

*Dr. F. Lemoyne*, of Pittsburg, presented some drawings of an united fracture of the femur, and history of a successful case in which he had applied his method of treatment, viz.,

#### DOUBLE SPLICE AND WIRED CLAMPS.

The treatment has been successful in three cases, two of the humerus and this one of the femur. The bone was cut down upon and the fragments found to be overlapping nearly three inches. The ends were sawed off, the upper fragment in the form of a wedge; from the lower one a wedge-shaped piece of bone was removed, so that the upper fragment fitted into it. A hole was drilled in both bones about one and a half inch from the fractured ends. A stiff, flat steel bar, with a prong at either end, was placed lengthwise on the surface of the bone, so that the prongs were inserted into the holes; a stout piece of wire was then passed around the clamp and femur at either end, and twisted close up, holding the clamp in position. The wires and clamp remained there nine weeks, when the wound was reopened and the clamp removed. The bone was firmly united, but the limb is two and a half inches shorter.

FRIDAY, SEPTEMBER 9—FIFTH DAY—MORNING SESSION.

*Dr. George Assaky*, of Bucharest, Roumania, read a paper on  
IODOL IN SURGERY.

*Dr. Milton J. Roberts*, of New York, read a paper on

A NEW METHOD OF OPERATING ON BONE BY MEANS OF THE ELECTRIC OSTEOTOME.

*Dr. George E. Post*, of Beirut, Syria, read a paper on  
CALCULUS IN SYRIA.

The writer remarked that it would almost seem to be produced from climatic causes, as it was such a prevalent malady there. In Palestine and almost every village, these cases are extremely numerous both in young and old; in one day four patients came to him from a single village. When an operation is performed, the stone is generally found to be larger than is found in European countries, owing to the natives being extremely averse to all surgical operations, and hence procrastinating; a Moslem dislikes an operation extremely. Then, again, there are not many good surgeons there, and they frequently hesitate to perform an operation for stone; besides, too, the people are ignorant and poor. In that region there is a class of men called "stone-cutters," who make it their business to travel and remove stone from the bladder. They carry a bag containing the stones they have removed, and also those bequeathed to them by their ancestors, if in that calling. Their method of operation is as follows: The patient is laid on his back, without the use of anesthetics, and held by assistants; the stone-cutter inserts two fingers into the rectum and feels for the stone in the bladder; when felt it is pushed toward the neck of the bladder, and then, with the aid of a razor or borrowed scalpel, he cuts down upon the stone through the perineum, and, when reached, the stone is pushed out by the fingers in the rectum.

*Dr. Oscar J. Coscary*, of Baltimore, Md., read a paper on  
AN UNCOMMON CASE OF FRACTURE, WITH DISLOCATION OF THE  
TARSUS AND METATARSUS.

*Dr. N. Senn*, of Milwaukee, Wis., read a paper on  
ELASTIC CONSTRICTION ON THE NECK, WITH EXCLUSION OF THE  
TRACHEA, AS A MEANS OF CONTROLLING HEMORRHAGE IN  
OPERATIONS ON THE HEAD.

*Dr. Carnochan*, of New York, presented a specimen of  
DOUBLE DISLOCATION OF THE HIP-JOINT.

*Dr. Link*, of Indianapolis, Ind., read a paper on  
ALCOHOL AS AN ANÆSTHETIC.

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SECTION IN GENERAL MEDICINE.

*Abram B. Arnold, M. D.*, Baltimore, Md., President.

Secretaries—J. W. Chambers, M. D., Baltimore, Md.; W. F. Waugh, M. D., Philadelphia, Pa.

MONDAY, SEPTEMBER 5—FIRST DAY—AFTERNOON SESSION.

After calling the meeting to order the President read

AN ADDRESS IN MEDICINE.

He thought it especially appropriate upon such an occasion to review therapeutics and diagnosis.

In reviewing the therapeutic nihilism at one time prevalent, he contrasted it with that over-confidence placed in drugs, which, although similarly irrational, had not been fairly tested.

The treatment of acute febrile diseases was particularly worthy of study and attention. At present, there is an English, French, German, and American treatment for fevers. It was interesting to note that within the last three or four decades the rate of mortality in fevers had decreased. All drugs which have been used in reducing the fever have had the unfortunate action of overwhelming the system in a manner especially worthy of our attention. The evidence of the value of these remedies has not been established. Hyperpyrexia itself is truly a source of great danger. There is no remedy so good as the judicious abstraction of heat from the body. Those who advocate active treatment ought to review the history of the treatment of pneumonia. The superiority of non-interference over active measures allowed this disease to make the fortune of homeopathy.

Inconsiderate medication is due to an erroneous conception of the true nature of disease. The general principles formulated by the older physicians were on the whole excellent, so far as the general management of their cases was concerned. They treated expectantly, and were ever on the alert for complications. One part absolutely remedial is good nursing and sound hygienic rules. There is a conservative medicine as well as a conservative surgery.

Preventive medicine, which has been fairly organized, constitutes a new epoch in the history of medicine. Bacteriology and vital statistics teach us valuable lessons. The increased attention to hygiene by the people, the amelioration of the condition of the poorer classes by removing young children from the factories, and the diminution of the hours of labor, contribute largely to the increase in the longevity of the race.

Pathology has been advancing, yet therapy not equally so. The practitioner classes his diseases in sclerosis, cirrhosis, etc., with far



greater ease than he applies his remedies to them. The text books have dropped the subjects dropsy, paralysis, etc., and are changing clinical into anatomical diseases. Physicians once thought they had specifics, such as calomel and various alteratives. Perhaps we have too completely thrown them aside.

Symptomatic treatment, however, may not be neglected; it is often curative. Structural changes also may be modified by remedies which affect the functions of organs.

The criticisms of experimental therapy are untenable, as by this method we arrive directly at a knowledge of the sphere of action of the remedies. Virchow said, "therapy alone tolerates rubbish," a statement not so true now as when he said it. We ought, therefore, not only to know better the therapeutic action of our remedies, but also to increase the number of these agents by experimentation. The numerical method is imperfect, yet is still the best way to compare different methods.

*Dr. Ignacio Alvares*, of Mexico, read a paper entitled

SOME SUGGESTIONS UPON THE PATHOGENESIS OF YELLOW FEVER.

Large experience with the disease in Vera Cruz, Mexico, has led to the theory that yellow fever is an auto-blood-poisoning, either by the phosphate of soda of the blood having been burned from the basic into acid, or by the phospho-glyceric acid set free from the lecythina by the reactions in both cases that have been produced by the living of the microbes upon the constituents of the sanguine fluid.

*Dr. Walter P. Geike*, Ontario, Canada, read a paper entitled  
PNEUMONIA AS MET WITH IN VARIOUS PARTS OF THE DOMINION  
OF CANADA.

Pneumonia he had found to be far more often secondary than primary; the former was probably most frequently seen as a complication of typhoid fever. He had corresponded with physicians practising in newly and sparsely settled countries, and he had found that in these localities, both East and West, it was a rare disease. It never occurred in epidemics. He asks: Is it because there are so few inhabitants that an epidemic never occurs?

As sanitary methods increase, low and asthenic forms and epidemics decrease.

In the recent epidemic in Toronto, the disease seemed to affect both the weak and strong alike. Investigation showed that the disease is more acute in rural, and less so in populated districts.

There had been cases in the recent epidemic in which it seemed to be contagious. The specific character of the fever would naturally support such a view. Realizing fully the predisposition to the disease which arises from the abuse of alcoholic stimulants, yet improper drainage and water were the great cause.

*Dr. T. B. Lester*, of Kansas City, thought pneumonia an infectious disease, sometimes influenced by malaria, by unsanitary influences, and at other times by septic conditions. He had cases which did well by immediately instituting the tartar-emeti treatment with a blister. Apparently similar cases this treatment had little effect upon, owing to malarial complications, which rapidly disappear on administration of quinine. Again, the cases of septic origin he treated very successfully with whiskey and milk.

*Dr. H. D. Didama*, of Syracuse, N. Y., said that the microscope has demonstrated the micrococcus. What has it to do with pneumonia? Is it accidental? Experiments have shown that by inoculation they will produce the disease. In typhoid fever we have many types, yet they are all caused by the same kind of poison. Why could not this be also the case with the different forms of pneumonia? We ought to bear in mind that the latter disease has a regular course. Blisters he approved in cases complicated with pleurisy.

*Dr. James Stewart*, of Montreal, Canada, inquired whether pneumonia was more frequent and also more fatal in malarious districts.

*Dr. Geike* replied that pneumonia was not more frequent, but more tedious and of a lower form, when complicated by malaria. It was also more fatal, in so far as it was of a lower form.

The Section then adjourned.

TUESDAY, SEPTEMBER 6—SECOND DAY—AFTERNOON SESSION.

*Dr. Josef Korosi*, Director of the Communal Statistics of Budapest, Hungary, read a paper on

THE PREVENTIVE POWER OF VACCINATION,  
with a critical review of the vaccinal statistics.

Making up the balance of vaccination, and counting its benefits on the credit, its damages on the debit side, it is found that among a population like that of the United States the vaccination would save annually 120,000 lives, while the number of children dying from cutaneous diseases, etc., caused by vaccination, might make 300, so that the balance is an extremely favorable one. The vac-

cination is an operation, but who would prohibit a life-saving operation where the chances of danger are so extremely few as above mentioned?

*Dr. W. M. Whitmarsh*, London, England, read papers on

#### VACCINATION AND PASTEUR'S TREATMENT.

He could not state that vaccination is a preventive against variola, although many believe it to be so. Vaccination does, however, lessen the liability, even though it may not give a complete immunity from disease. Forty years ago sixty per cent of the people in England were to be seen pitted by small-pox, while at the present day there is hardly one per cent.

In England it is compulsory that all children over three months old shall be vaccinated. Such a law being in vogue, it is the duty of the state to use special care in the selecting of good lymph. This they evidently have not done, the authorities at present depending upon humanized virus, which they dealt out gratuitously to the poor.

That vaccination may transmit disease is conclusively proven in the case of *Dr. Cary*, who syphilized himself in endeavoring to prove that such a transmission was impossible.

Educate people up to the fact that vaccination, when properly performed, is a good measure, and then their common sense will make them adopt it. During the year ending September, 1885, there were in England 2,806 persons prosecuted for refusing to comply with the law and be vaccinated.

#### PASTEUR'S METHOD.

In a paper entitled "*Pasteur's Treatment*" he reviewed very elaborately the method and principle involved in the preparation of the virus for inoculation. The various instruments used were presented, and their use explained; also a solution, hermetically sealed, containing the prepared virus.

It is proved that dogs shut up in a room and given but a small quantity of water will go mad. In the cases presented and operated upon in *Pasteur's* laboratory it is extremely doubtful whether the patients have had hydrophobia, and consequently it is difficult to determine the curative efficacy of his inoculations. *Pasteur* originated a disease in rabbits, which he called rabies. It is important, since some of his cases have been fatal, that the disease be not originated by this process of treatment in a person supposed to be, though not actually, suffering from the disease.



There were cases in which Pasteur's treatment had failed, even when there had been no delay in coming under the treatment.

The only way to settle the question is by the means employed fifty years ago in reference to small-pox, and that was upon convicts, allowing them their choice between their sentence and becoming the subject of experimentation.

*Dr. C. A. Leale*, New York city, expressed his great interest in the papers, and spoke on the latter. As medical officer for several large benevolent institutions for sick children he had coming under his observation 18,000 to 20,000 sick children annually. These children were sent from all parts of the city, and all were carefully examined by competent medical men. As these children are only the sick ones of the families, they represent the number taken from at least 100,000 children in the city and surrounding places. He had never seen, or had reported to him, a single case of hydrophobia, although hundreds of these children had at different times been bitten by dogs.

It is to be sincerely hoped that the profession will not, with our present knowledge, resort to Pasteur's method of inoculation.

*Dr. Wm. Welch*, Philadelphia, Pa., said: I believe vaccination possesses the power of absolutely preventing small pox. To be entirely free from danger it must be recently and properly done, and under such circumstances he had never seen any bad result. In his hospital experience he had had 5,000 cases come under his observation, and after vaccination he allowed attendants to wait upon the sick patients without their contracting the disease. Humanized virus is preferable, especially such as has been humanized through several inoculations, as virus thus attenuated does not make so profound an impression.

As to durability, it does run out. It was noticeable that among the cases admitted there were no, or very few, children brought in with the disease who had been vaccinated. One of these died.

The dangers of vaccination are two: syphilis and erysipelas—the latter often caused by carelessness on the part of the physician.

WEDNESDAY, SEPTEMBER 7—THIRD DAY—AFTERNOON SESSION.

*Dr. John A. Ouchterlony*, M.D., Louisville, Ky., read a paper entitled

#### THE STUDY OF THE NATURAL HISTORY OF DISEASE.

He was deeply impressed with the importance of the subject in its practical bearing upon the solidity and permanency of medicine as a science.

The truth is, nature possesses far greater power in curing disease than is admitted. A knowledge of the natural history of disease is the necessary basis upon which to estimate all medication.

To arrive at a proper knowledge of this the co-operation of large numbers of medical men throughout the world is necessary. These observations must include patients affected with various diseases modified by age, sex, occupation, etc., the duration of the malady, the events marking its course, the mortality, and mode of death. We shall then be in a position to judge with positiveness the value of a drug in shortening disease, preventing complications, or averting a fatal result. There are many obstacles to the execution of such a plan. To some it will appear culpable to withhold the assistance of art, and consign a patient to the exclusive care of nature. Independent of the consideration of the benefits to be derived therefrom, all objections to such experimentations may be fairly met by the following arguments:

*First*—Since we do not hesitate to subject patients in our public hospitals to treatment with medicines the action of which is imperfectly or not at all known, and consider it legitimate, it can be no less so in similar cases to simply watch the operations of nature.

*Second*—It must not be overlooked that nature, having inflicted disease, is also in many instances adequate to its cure. This is true of both light and severe diseases—those in their nature grave, such as malignant fevers, tuberculosis, and cancer spontaneously recover.

*Third*—The strong tendency to recover in acute affections is often admitted, and is a good reason in many cases for reducing medicinal interference to a minimum, and in many cases amply justifies allowing the disease to pursue the undisturbed and natural course.

*Fourth*—The character of self-limitation which we now know to characterize many diseases should be a warning to those who entertain exaggerated ideas of the results produced by their treatment, and an encouragement to those desiring to study the natural history of disease.

*Fifth*—Were it not that the *vis medicatrix nature* is no imaginary power, but a living reality, it would be impossible to understand how it is that many quite feeble or absolutely inert medicaments could have attained such a high reputation in the treatment of various and severe affections.

*Sixth*.—The indisputable fact that recoveries take place from similar diseases under quite opposite plans of treatment allows

no other inference than that the recoveries are due to nature alone.

*Seventh.*—When one recalls how marvellously patients sometimes get well under the rude and pernicious medication inflicted by quacks, one is forced to conclude that nature is not only adequate to remove the original disease, but also to overcome the artificial disease not infrequently superadded by the *energetic ignorance* of the practitioner.

Physicians cannot if they would, and should not if they could, forego all medicinal treatment in the management of all the sick under their charge.

The greatest field for observation is the hospitals. It is well to set aside a certain number of cases and compare the results of medicinal and non-medicinal treatment.

*Dr. Pavy*, of London, England, remarked, "I felt that I could not leave without saying I am heartily in accord with the idea that there is a natural history of disease, just as we each have a natural history of ourselves. By studying the natural history of disease we enable our own natural history to have its free play." He believed we need, as physicians, more knowledge of agencies to cut short the natural history of disease. We also need medicines to influence the mind as well as the body.

*Dr. T. D. Crothers*, Superintendent Walnut Lodge, Hartford, Conn., read a paper on

#### THE DISEASE OF INEBRIETY AND ITS TREATMENT.

The doctor mentioned the historic fact that inebriety was called a disease long before insanity was thought to be other than spiritual madness.

When accurately recorded histories of many cases of inebriety are studied and compared, certain fixed ranges of causes appear, which follow some regular order of movement.

In dipsomania and periodical inebriety a condition allied to epilepsy was mentioned. The explosions of the craze for drink were called nerve storms, the regularity and uniformity of these periods were mentioned.

The uniformity of the symptoms of inebriety was described. Inebriety was affirmed to be increasing, and becoming more concealed every year. The coarser features were giving way to mania and suicide, etc.

The evidence of drink-cycles were described, and the temperance-



movements were affirmed to be reactions of the drink-cycles, and governed by laws and forces unknown.

In the treatment, work-house hospitals, conducted on a military basis, were urged, such hospitals to be built from the license fund and made like quarantine stations, where the patients could be controlled and placed in the best condition for recovery.

Different plans of treatment were mentioned in detail, and the profession urged to take up this subject and solve its problems along the line of accurately observed facts.

THURSDAY, SEPTEMBER 8—FOURTH DAY—MORNING SESSION.

*Dr. Ephraim Cutter*, of New York, read a paper entitled

#### MORPHOLOGY OF RHEUMATIC BLOOD.

Illustrated with stereopticon slides. He attributes the increased force of cardiac action with consequent exhaustion and inflammation, to the great adhesiveness of the blood.

*Dr. Mariano Semmola*, of Naples, Italy, read a paper on the

#### PATHOGENESIS OF ALBUMINURIA.

Giving the results of original investigations made at the University of Naples.

#### NOTES ON THE TREATMENT OF PHTHISIS, MORE PARTICULARLY THAT BY INTRA-PULMONARY INJECTION.

*R. Singleton Smith, M. D.*, London, England, said that since the last International Congress at Copenhagen, in 1884, numerous attempts have been made to do more than had previously been attempted for a disease in which the *vis medicatrix naturee* does so little. He briefly summed up the various methods which have been recently suggested since the discovery of the bacillus of tubercle, and expressed his belief in the possibility of benefit by treatment directed toward the destruction of the bacillary growth.

Nevertheless, the author would not advocate the use of such injections in cases which were hopeless, neither would he employ them in cases where other and less active measures were accomplishing the object in view. He concluded his paper by urging perseverance in spite of failure, and by expressing his belief that what as yet was only a tentative investigation would ultimately result in numerous and signal successes.

#### AFTERNOON SESSION.

The whole afternoon session was taken up with a discussion on

#### DIABETES,

based on a paper by *Dr. Pavy* of which it is our purpose to give our readers fuller details than our space will allow us to introduce here.

FRIDAY, SEPTEMBER 9—FIFTH DAY—MORNING SESSION.

*Dr. George E. Stubbs*, of Philadelphia, Pa., read a paper entitled  
RATIONAL TREATMENT OF DISEASES OF THE RESPIRATORY  
APPARATUS.

He was partial to counter-irritation with moisture and heat. For this purpose he used flannel wrung out in hot mustard water, applying this around the chest and putting a dry layer of flannel over this.

*Dr. Eye*, of Reading Pa., read a paper on

A NEW METHOD OF TREATING PHTHISIS.

To the white of an egg is added six to eight ounces of water; this mixture is put away in bottles for five or six days, until the mixture has the odor of rotten egg. From one-half to two ounces of this fluid are placed in an atomizer and deeply inhaled during twenty four hours. Under this treatment the expectoration becomes thinner and of less quantity, the microscopic examination of the sputa shows a less number of the bacilli, and finally none at all. He stops the treatment when the sputa no longer contain the bacilli.

*Sir James Grant*, of Canada, read a paper on

DIPHTHERIA.

AFTERNOON SESSION.

*Dr. A. B. Arnold*, the President, then read a paper on

DILATED AND FATTY HEART.

*Dr. George E. Fell*, F. R. M. S., of Buffalo, N. Y., read a paper on

FORCED ARTIFICIAL RESPIRATION IN OPIUM POISONING, ITS POSSIBILITIES, AND THE APPARATUS BEST ADAPTED TO PRODUCE IT.

In one of the latest extensive works, we find that artificial respiration has a wider range of application than might at first be supposed. It has been used in drowning, strangling, occlusion of the air-passages, hemorrhage, and poisoning from anesthetics and the various alkaloids. Those methods depending upon the movement of the limbs and body for their success have been usually supplemented with pressure by the physician. In the physiological laboratories experiments are performed, in which the trachea is opened to supply the air for respiration by means of bellows. The insertion of laryngeal tubes aiding in artificial respiration is worthy of consideration.

He related a case in which this mode of treatment had been used with complete success.

## NOTES AND ITEMS.

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THE NINTH INTERNATIONAL CONGRESS which held its meeting in Washington last month was an enjoyable and profitable occasion. Among the guests from other nations were several whose names are recognized as being among the most eminent in their respective countries; and while the number of these distinguished foreigners was not large, it must be remembered that the distance from Europe to America seems much greater to the majority of European professional men than does the distance from America to Europe to those similarly occupied in our own country.

The scientific work of the Congress was respectable and creditable, not equal to that of the last two meetings.

The social features of the occasion were such as to demonstrate the liberal hospitality of our people, not such as to do any credit to our government when compared with the lavish entertainment provided for the Congress by the Danish government when the meeting took place at Copenhagen.

Now that the Congress is done with may all the unpleasantness and bitter feeling which accompanied the work of preparation be done with, too; and let all Americans unite heartily in work for the common good of the profession. Let mistakes be over-looked, let faults be condoned, let the hatchets be buried, let us all draw a whiff from the pipe of peace, and let all members of our noble profession strive for the elevation and advancement of its best interests.

We give our readers in this number of the *COURIER* a report of the general sessions of the Congress and of the sections on General Medicine and General Surgery abridged from the report prepared for the *Medical Record*, for advanced copies of which we are indebted to the courtesy and liberality of Messrs. Wm. Wood & Co., to whom we take this opportunity of returning thanks. In our next issue we shall give brief notices of some of the most important part of the work done in other sections.

LOUISVILLE claims to publish the largest number of medical journals in proportion to her population of any city in the world.



# ST. LOUIS COURIER OF MEDICINE.

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## ORIGINAL ARTICLES.

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### LEAD IN ST. LOUIS HYDRANT WATER.

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BY C. O. CURTMAN, M. D., PH. G.

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[*Read before the Medico-Chirurgical Society, September 6, 1887.*]

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WHEN metallic lead is brought in contact with pure distilled or rain water, it will, by the agency of the gases dissolved in the water, be rapidly converted into lead hydrate or carbonate. If much carbonic acid gas is present, some lead bicarbonate is formed, which is soluble in water, and would render it unfit for use in the household. The presence of ammonia or nitric acid, even in small quantities, will render lead more soluble in water. But if the water contains lime salts and alkaline sulphates in solution, it may remain in contact with metallic lead for some time without dissolving any appreciable amount of it. There is formed a thin, superficial coating of lead suboxide, or sulphate, which very effectually protects the balance from conversion into soluble salts of the metal.

Upon these facts rests our immunity from lead contamination, though the water be conducted through leaden pipes, in all of those places where the water contains the protecting salts, while it is dangerous to use this metal wherever the water is very pure. In this way we have for many years used lead pipes in our water

conduits in this city to connect the iron street mains with our houses without any deleterious effects. On many occasions, in former years, I have applied to our hydrant water the most sensitive tests for lead, but have only occasionally found small quantities in it for a short time. In the laboratories conducted by me, hydrant water has frequently been used to wash the hydrogen sulphide, used so much in analysis, and any lead in the water would thus at once have manifested itself so unmistakably as to render it most certain to be observed. Imagine, therefore, my surprise, when during the last months I found that the water from my hydrant, which I used in the wash-bottle of the sulphuretted hydrogen apparatus, contained lead enough to color the water black. The precipitate did not disappear on addition of hydrochloric acid, thus precluding the possibility of the black sulphide of iron being mistaken for that of lead. The experiment was repeated time and again, with every precaution against a deception, but the fact remained—there was lead in the hydrant water. Iron was also found present, but in very limited amount. I then procured specimens of water from various localities in the city, and in all of them my experience was repeated—lead was found; sometimes only in minimal quantities, sometimes in comparative abundance. The water was procured for examination by letting a bucketful or more flow from the hydrant so as to empty the pipes of any contents that might have remained longer in contact with them, and the specimen was set aside to deposit its sediment. The clear half was poured off and the sedimentary part examined by adding hydrochloric acid, and then passing sulphuretted hydrogen gas through it for some time. After awhile a black color indicated the presence of lead converted into sulphide. This was not at once apparent, as the lead was not in solution, but distributed through the sediment in a very fine state of subdivision. Brought under the microscope, the roundish opaque particles were easily distinguished from the acicular transparent fragments of quartz, forming the principal portion of the suspended material. The average size was somewhat smaller than that of the red blood corpuscles. The reaction only occurred gradually and slowly, as the solid particles of lead were much more slowly affected than if they had been in solution.

The cleared portions of the same specimens of water, prepared partly by subsidence, partly by filtering, were next examined, and in several of these, though not in all of them, lead was found only in very small quantities, both by the hydrogen sulphide test and by the much more delicate one of tincture of cochineal. This proved that while the greater part of the lead was contained in the suspended material in an undissolved state, a small quantity also existed in solution in the cleared water.

Another experiment was made with water taken directly from the river which had not passed through the system of lead pipes. After permitting it to deposit its sediment so as to become perfectly clear, a piece of freshly cut metallic lead was placed in contact with it for several days. Only the merest trace of lead could be found dissolved. An examination of the water for ammonia and nitrites, whose presence increases the solubility of lead in water, showed only an insignificant amount.

These considerations lead me to ascribe the cause of the presence of so much lead in our water to the mechanical abrasion occasioned by the passage of an unusual quantity of fine sharp sand through the pipes. Under the higher pressure near the water towers this scouring of the pipes appears to be somewhat greater than in the southern parts of the city supplied by the Compton Hill reservoir, where the water has had more time to deposit some of its sediment, and where in the higher locations the current is too slow to effect any scouring at all.

To determine the quantity of lead in the sediment, I used a volumetric method, which, though not entirely accurate, gives with but slight trouble results sufficiently accurate for the present purpose.

A litre of the turbid water drawn from the pipes was digested in a close vessel for twenty-four hours with 10 cubic centimetres deci-normal iodine solution. Ten cubic centimeters deci-normal sodium hyposulphite were then added, and after addition of starch solution the titration was completed with iodine.

By this approximate method I found that the amount fluctuated considerably from day to day, and during the first weeks in August the maximum of lead found was 40 milligrammes per litre, the minimum 15 milligrammes per litre.



This corresponds to a maximum of  $2\frac{1}{3}$  grains per gallon, and a minimum of about  $\frac{1}{3}$  of 1 grain per gallon.

I place on the table before you for your inspection a few of the specimens treated with hydrogen sulphide by me, labeled, with date and house number. All were procured after letting a bucketful or so of the water in the pipes run out before taking the specimens.

The amount of lead found has fluctuated considerably in the same locality, and since August 24 has rapidly diminished, together with the whole amount of sediment in the water. On August 26 I found not a trace of the lead in two places where I had found it two weeks before. A new locality tested also showed no reaction, while in another a moderate reaction was found, and at two localities the amount was still comparatively large. At one of these places I made the test in the presence of several colleagues now present, and have in a variety of places repeated the test before competent witnesses or had it made by others.

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### ERYSIPELAS.

BY DR. I. N. LOVE.

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[Read before the *Medico-Chirurgical Society of St. Louis*, Sept. 20, 1887.]

THERE are various forms of erysipelas, the principal divisions being known as idiopathic and traumatic, but undoubtedly all cases are due to the same cause, the same specific virus or micrococcus, brought to our knowledge chiefly through the researches of Fehleisen. He demonstrated a characteristic "chain forming micrococcus" in the lymphatic vessels and serous canaliculi of the diseased skin. He claims that it exhibits peculiar behavior in pure gelatine cultures and invariably causes erysipelas in the rabbit and the human beings that may be inoculated with it.

I do not propose to occupy your time with a presentation in detail of the various symptoms of the disease, knowing that you are as practitioners thoroughly familiar with them.

Dermatologists may present names for every possible variation of the disease, such as, *erysipelas vesiculosum*, *pustulosum*, *erraticum*, *bullosum*, *gangrenosum*, *neonatum* and so on *ad infinitum*, but such multiplication is confusing and unnecessary. We need to bear in mind in this disease, as in all others, that

the various modifications are largely dependent upon surroundings, conditions and individuality of the patient affecting the mildness or severity of the attack.

Erysipelas is unquestionably infectious and inoculable, but less so than scarlet fever, or measles; and Beck gives it as his opinion that it ranks with diphtheria in this direction.

Constitutional predisposition has much to do with this trouble, and this no doubt is increased by previous attacks (differing in this particular from most of the the acute infectious fevers), and sometimes heredity plays a not unimportant part.

That form of the disease known as the idiopathic usually has as a starting point some part of the face; but even this form is probably traumatic, as the inoculation may occur upon some abrasion of the mucous surface or face so insignificant as to be unnoticeable by the naked eye, resembling no doubt the specific virus of syphilis, diphtheria and vaccinia in being primarily of local origin and dependent upon proper soil and conditions for full development, giving rise secondarily to constitutional disturbances.

In this short paper I propose to give my views regarding the practical treatment of this disease, basing them upon the experience of the past sixteen years, the first two years of which were spent in the City Hospital of this city, in charge directly, a large part of that time, of the erysipelas wards.

For thirteen years I pursued the traditional plan of administering internally heroic doses of the muriated tincture of iron, accompanied with quinine.

As a local application, after running the gauntlet of all the various lotions, unguents, escharotics, astringents, poultices, etc., that which was most satisfactory was the application usually prescribed for burns, viz., equal parts of olive oil and lime water, plus six grains of carbolic acid to each ounce. This appli-

cation accomplishes that which is desired in the keeping out of the air from the surface: being alkaline and oily it is very soothing, and the carbolic acid not only acts as a sedative to the irritated cutaneous nerves but is antiseptic, and this is its most important advantage, the disease being so decidedly infectious.

Some observers have recently recommended the subcutaneous injections of carbolic acid and other antiseptic solutions. I am not inclined to favor this procedure.

Pursuing the same line of thought, some writers have recommended watery solutions of carbolic acid and other antiseptics to the surface, but the best authorities oppose watery applications on account of the risk of chilling the inflamed parts.

Warmth and avoidance of variations of temperature are essential. Cold is positively inadmissible, in that it aggravates the inflammation and tends to cause suppuration and even sloughing; this being the case there can be no doubt that oily applications are to be preferred, as they aid in the securing of uniformity of temperature to the inflamed surface, and if they be carbolized, they are not only advantageous in limiting the virulence of the infectious matter to the surfaces involved, but they possess the same advantage they do when used as local applications to surfaces in cases of scarlet fever—being disinfectant to the diseased patient, the spread of the disease to others is prevented.

A favorite application for some time in the City Hospital of St. Louis has been the fluid extract of ergot.<sup>1</sup> I have used it in a number of cases, and prefer the common oil and lime water (carbolized) previously referred to. The patient has also preferred it invariably, claiming that the oil was much more soothing and agreeable.

The ergot is a local astringent and nothing more.

Prof. v. Nussbaum has recommended recently the application of ichthyol salve (equal parts of ichthyol and vaseline.) He does not claim that it is antiseptic, and therefore has no effect in destroying the micrococci; but he supposes that the agent so reduces the soil of the cocci that it becomes unfit for their further development upon it.

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<sup>1</sup> Weekly Medical Review.



In a recent paper in the *Glasgow Medical Journal*, Robert Pollox, a very careful observer, favors the local antiseptic measures which antagonize infection and keep out the air from the part.

He lays great stress upon the hygienic surroundings and eggs, milk, beef tea and stimulants.

Constitutionally the most valuable remedies we have for this disorder are the muriate of pilocarpine and the benzoate of soda. The first remedy acts as a stimulant to the secretory system of glands, and in this disease, as in all infectious fevers, it is important to aid the organs which carry off the products of carbonization. Effete matter must not be permitted to accumulate.

By stimulation of the sweat glands an exosmosis is established rather than an endosmosis; a throwing off instead of an absorption; by this means too the kidneys, the business partners of the skin, are not overburdened.

In the administration of the benzoate of soda we secure a remedy antagonistic to infection and stimulative to the glandular system, and at the same time a reducer of temperature. I can not better justify my use of it in this disease than by quoting from a paper read by the writer before the St. Louis Medical Society in February, 1886, on Scarlet Fever, as follows:

“The remedy upon which I chiefly rely in my infectious cases is the benzoate of soda. In 1879 Salkowski showed that this drug largely increases the secretion of nitrogenous and sulphurous compounds, with the urine, and drew the conclusion that it should be useful in diseases in which the blood is overcharged with effete matters.

Salkowski, Fleck and Buckholtz discovered that the benzoate of soda prevents the development of bacteria in putrescible liquids, and Graham Brown found that diphtheritic fluids lose their contagious quality speedily in a solution of benzoate of soda.

The remedy also in my judgment reduces temperature. It may be given in from ten to fifteen grain doses in syrup and cinnamon water, every hour or two, to a child from two to five years of age. The mixture is a very pleasant one.”

With a view to keep the alimentary canal in good condition and digestion and assimilation, infinitesimal doses of the mild

chloride should be given two or three times daily, or oftener if indicated.

The disease being depressing, and the remedies suggested above also, a proper amount of diffusible stimulant is called for, and the best is no doubt good Kentucky whiskey, accompanied with goodly quantities of water. In fact I think in all diseases all medicine should be as nearly as possible in a liquid form and accompanied with a liberal supply of water; the action is much more prompt and reliable, water in itself aiding in absorption and elimination and the flushing out of nature's sewer pipes.

I am convinced that the unfortunate victims of alcoholism who frequently succumb to erysipelas should be given large quantities of whiskey.

In the dangerous and violent deliriums occurring in the most severe forms of erysipelas, the one remedy which is to be depended upon is the carbonate of ammonia well diluted; but during the past three years, since pursuing the course above indicated, I have had no cases of this delirium, and no deaths, though a number of those attacked were of the most violent type and the surface involved extensive.

Apropos to the use of the benzoate of soda, I quote the following from the *American Practitioner*, May 1887, viz :

"Haberhorn, believing that the various antiseptics have not an equivalent action, that salicylic acid is especially appropriate for infective diseases of the joints, and calomel and corrosive sublimate for intestinal affections, has brought forward benzoate of soda as particularly efficacious for erysipelas, scarlatina and other infectious diseases with cutaneous localizations. In fifty cases of erysipelas the author has obtained excellent results with the following medication.

He administers from three to five drams of benzoate of soda daily in a mucilage of seltzer water and makes no local application. The medicine was kindly borne. The temperature invariably descended to the normal within forty-eight hours; the local manifestations disappeared rapidly, and desquamation was more rapid than usual. In all the cases treated not one was fatal. In two cases in which the progress was slower, the author considered the dose as insufficient."

Considering the experience of the past three years, during which time a series of twenty cases, all more or less serious (one of which, a very violent one, occurred coincident with parturition, without puerperal complications) were treated upon the plan outlined above, and comparing the results with those secured during the previous years under other procedures, I feel justified in concluding,

1st. Erysipelas, whatever the form, being an infectious disease, should be severely isolated and treated locally and constitutionally upon the antiseptic plan.

2d. As in all other infectious diseases, unremitting attention should be directed to the glandular system, to the end that no poisonous matters or ptomaines be permitted to accumulate.

3d. As a protector against the air and the bacteria therein contained, a soother of the painful surfaces, a destroyer of the local infectious matter, an application of an oily alkaline carbolized lotion is to be preferred, such as we have in carbolized olive oil and lime water.

4th. As antagonistic to constitutional infection, stimulators of the secretory system, of glands, benzoate of soda, muriate of pilocarpin and minute doses of calomel are most valuable, always accompanied by free quantities of water and judicious stimulation.

5th. Due regard must be paid to the general sanitation of the patient, good nutrition and proper stimulation.

6th. In consideration of the fact that the stomach is generally impaired in its tone and digestive powers, a predigestion of all food should be the rule.

7th. The muriated tincture of iron will be found of great value in building up the demoralized blood during convalescence.

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THE CLIMATOLOGIST is promised as a quarterly journal devoted to the consideration of medical and sanitary climatology. It is to be under the editorial management of Dr. Geo. H. Rohé, and will be published in Baltimore, Md., at the small price of fifty cents per annum.



## CASES FROM PRACTICE.

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### PSEUDARTHROSIS OF HUMERUS.—RUPTURE OF THE LIVER, ETC.—DERMOID OVARIAN TUMOR.

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BY H. TUHOLSKE, M. D.

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[*Reported before the Medico-Chirurgical Society, June 14, 1887.*]

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The first case to which I will call attention is one of pseudarthrosis of the humerus, following extensive injury. The history is as follows:

E. T., æt. 28, press-worker, September 9, 1886, at 7 A. M., while oiling machinery in the press-room had his left arm caught between the spokes of a large pulley-wheel and wedge, the arm being between the spokes of the wheel and brace, cutting and tearing the arm, fracturing the humerus, dividing the triceps muscle three-fourths of its width, the biceps more than half of it, the skin through the posterior outer and anterior portion of the arm from a point on the posterior portion four and three-quarters inches above the olecranon downward and forward to a point two inches above the inner condyle of the humerus. The brachial artery and the nerves remained intact. Drs. Dixon and Riesmeyer, who then saw the patient, found the bone comminuted and removed one piece one and eleven-sixteenths inches long and composing about one-third of the circumference of the humerus, and several small pieces. Dr. Dixon, after arresting the hemorrhage, thoroughly cleansed and disinfected the parts, united the torn muscles by interrupted cat gut sutures, the skin by a continuous suture, applied dressing and splints. The following day the temperature rose to 100.6° F., and there was considerable oozing. I now washed the wound thoroughly with bichloride solution, one to a thousand, and substituted for the absorbent cotton dressing, bichloride absorbent

gauze. The next day the temperature became normal and remained so without the formation of any pus. By November 5 the parts had thoroughly healed, but there was no union of the bones. On December 5 I made an incision over the site of pseudarthrosis, and removed a number of fragments of bone, which were interposed between the ends of the bone. Several of them had even then formed the semblance of a movable joint. I then turned the fractured ends out through the incision, sawed the ends at right angles to the shaft, replaced them, wired them together, and dressed the parts under strict antisepsis. Healing took place without any reaction local or general, and at the end of two months there was as little union as before. April 20 I made another attempt, brought out the fractured ends as before, sawed off a thin slice, as in the previous operation, but now removed rectangular pieces one and three quarter inches in length, and half the thickness of the bone, put the bones in apposition and wired them together with heavy silver wire made by twisting some strong wire until so large that it fit rather snugly into the holes made with a small drill. The periosteum was saved, of course, having been raised by a Langenbeck's goat-foot elevator, by the by a very useful instrument. The parts were dressed as in the previous operation. Ten days after, there having been an elevation of temperature to 101° F., a violent secondary hemorrhage occurred. I applied an Esmarch rubber cord around the shoulder, put the patient under the influence of ether, and with the assistance of Drs. Dixon and Higbee, opened the wound in its full extent, and found that some little pus had formed, which had corroded its way upwards and backwards and involved three or four blood vessels that looked like an axis coming off of the posterior circumflex artery. I was unable to ligate in the broken down tissue, and feared I would have to amputate or ligate the axillary artery, which might be followed by gangrene. Three forceps controlled the bleeding, and I dressed the arm leaving them in place. Things looked very badly, but the patient who had been exsanguined, rallied nicely; soon granulations formed in profusion, not repressed by strong antiseptics; a five per cent boracic acid solution. The forceps remained on for three days; the patient increased visibly in weight and strength under a liberal diet and plenty of milk and lime water, and bones united firmly.

Anyone who has been called upon to treat a case of pseud-

arthrosis will know the great annoyance of such a case to the surgeon, and there is hardly a class of cases in which the patient and others so readily recognize the want of success in the treatment; and this becomes a subject of considerable interest. It is hardly necessary to go over the general causes of pseudarthrosis meaning by that the faulty union in which there is an attempt at the formation of a joint, that is, in which the bone ends have become smoothed off and covered with a sort of cartilage, not those cases in which there is a ligamentous union between the ends of the bone. Among the causes generally put down in the text-books about the first and most important is the disease, rachitis. The fact is, however, that rachitis is very seldom, if ever, the cause of pseudarthrosis. Rachitis is simply the cause of delayed union, and the broken end or the callus that is formed undergoes about the changes reached in the soft granulation tissue on the epiphyseal ends of bone in a rachitic patient. The part is filled with soft granulation tissue and only very little is calcified and becomes bone. In the clinic there was a case of this kind in a child two years old, in which the rachitic marks were very plain everywhere. The humerus had been fractured in the middle, and there was a large amount of soft callus six weeks after the fracture had taken place, and the callus was of that kind that you could almost mould it, it was still pliable.

The next cause is one that we encounter very frequently; that is syphilis. A patient who sustains a fracture and who has syphilis, especially in the early stage, is very likely to get, instead of good callus, granulation tissue that terminates in an induration.

Another cause is miliary tuberculosis. A patient who has miliary tuberculosis and breaks a bone is very apt to have in place of callus a mass of granulation tissue containing tubercles and in which union will not take place. Then in order to be complete we put down the general carcinoses. In the patient who has carcinosis broken bones will not unite, but a carcinomatous growth will develop. At least so it is said when we find a fracture at the site of a cancer, the question is whether the fracture does not occur because of the growth in the bone.

Acute infectious disease may be a cause of pseudarthrosis, because an acute suppurative process may take place at the point of the fracture in the material thrown out for repair. Alcoholism is said to be one of the general causes; but it seems more a cause of



delay of union than a positive prevention of it. Pregnancy is mentioned as a cause of pseudarthrosis. I have never seen a pregnant woman with a fracture in whom I thought that prevented union. In one case, however, a lady in good health, with a good constitution, some years ago was thrown or fell from a car passing Lafayette Park and sustained a fracture of the upper third of the femur. She was then six or seven months pregnant. She was under correct and proper treatment but union never took place, nor has it to this time I believe.

We have as causes the local condition, great loss of substance, local anatomical peculiarities, interposition of soft substance; poor coaptation; bandage applied too firmly or too loosely: and, as a point for discussion, the effect of too strict antisepsis in open fractures.

Anyone who has treated open fractures and has applied strict antisepsis after osteotomies or after necrotomies will have found that under strict antiseptic regime, the process of repair is wonderfully slow; in fact, the reaction is repressed under its influence, and while we save the patient from septic and pyemic troubles, we run the chances in comminuted fractures with considerable loss of substance of not getting the amount of reaction that is necessary for the production of a good quantity of good healthy bone. I think this a point of considerable importance. I have frequently noticed the peculiar behavior of bone under strict antiseptic treatment, but was especially struck with the fact that in the case reported there was a secondary hemorrhage. Secondary hemorrhage does not occur without suppuration—without destruction or softening of the thrombus. In this case up to the time of the hemorrhage I had attempted very strict antisepsis; but I had evidently not succeeded. There should have been no pus and secondary hemorrhage that jeopardized the life of the patient. It will always be a matter for discussion whether in such cases it is better to trust to strict asepsis than to very strict antisepsis. I think that simple cleanliness and asepsis is the better course.

#### RUPTURE OF LIVER, ETC.

The following case occurred in the practice of Dr. Dixon and my connection with it was that of a consultant. Dr. Dixon furnished the following history:

Pat R. æt. 10 years, on December, 29, 1886, in getting off a street car from the inner or left side, came in contact with a wagon approaching on the adjoining track, knocking him down, passing over him and rendering him unconscious. Examination revealed a severe contusion over the right thigh, and leg and in region of the hip; swelling over a portion of right hypochondriac region over 8th, 9th and 10th ribs; contusions in left lumbar region. Percussion revealed dulness over lower portions of abdominal cavity. Patient had vomited some little blood, was suffering from shock, which lasted till next morning; had great pain over the region of the liver. Diagnosis: contusion of right thigh and leg, fracture of eighth, and ninth ribs, rupture of liver with extravasation of blood and probably bile into peritoneal cavity. This diagnosis was concurred in by Dr. Prewitt, who saw the patient in consultation. I saw the little patient with Dr. Dixon about four weeks later. The patient was very much emaciated, with anxious expression of face; suffering intensely with pain in his abdomen. The lower portion of the abdomen was intensely sensitive on pressure; skin as far up as the umbilicus of a reddish color and glossy, much like skin over a deep seated collection of pus. Patient's pulse was small and rapid; temperature only 100.8° F., respiration labored. The patient had never had a higher temperature than 100.8° F., had had no blood in his urine; had suffered intensely before and during micturition, also before defecation, but had had no chill at any time during the course of his illness. With the patient evidently sinking I proposed laparotomy, to remove the extravasation or exudation (probably both) which I thought had either become purulent or at any rate threatened to become so. I then learned that Drs. Prewitt and Dixon had made a like recommendation. With the patient *in extremis* it was less difficult to get the consent of the patient's mother. With the help of Drs. Prewitt and Dixon, Dr. Cole administering ether, I made an incision in the median line, found the visceral peritoneum attached to the parietes and a sort of cyst formed, shutting the extravasation and exudation off from the general peritoneal cavity. I removed a large wash-bowlful of a dark greenish thick fluid, which coagulated within a few minutes, and which, as Dr. Dixon proved by careful test, contained largely of bile and blood. A large drainage tube was put to the bottom of the cavity and a dressing applied over it. A few days later absorbent gauze, saturated with iodoform, was substituted for the tube,

and the little patient made a most happy recovery. This is undoubtedly a recovery from rupture of the liver and escape of bile into the peritoneal cavity.

#### DERMOID OVARIAN TUMOR.

This dermoid ovarian tumor I removed ten days ago from a patient, æt. 46 years. Dermoid tumors form only about seven or ten per cent of all ovarian tumors. It is, however, the second dermoid ovarian tumor which occurred in the last five cases I reported to you. There is nothing about the operation or in the after-treatment that demands any special mention. The patient was otherwise quite healthy; the tumor was movable, with a long pedicle, as could be demonstrated before the operation. One could take hold of the tumor just above the pubes and push it up in the cavity at least two and one-half inches. I was assisted in the operation by Drs. Dalton, Dixon and Higbee, and some gentlemen of the class at the Post Graduate School were present. I had no difficulty in removing the tumor from the cavity. I tapped the tumor in this place showing the presence of fluid in the general dermoid mass in order to reduce its size so as to get it through a reasonably small incision. The first sponge that was put in the cul-de sac of Douglass came out clean; there was no tearing of blood-vessels. I rubbed iodoform thoroughly into the pedicle and into every suture. I then put some iodoform on a sponge, and wiped the margins of the abdominal wound thoroughly. I used on that case probably fifteen grains of iodoform. In order to shorten the time of the operation and keep the patient under the anesthetic as short a time as possible I had as many needles threaded as I expected to use before I commenced the operation. The patient came off the table in very good condition: however the temperature was considerably below the normal, being 96.6°, but it came up that same afternoon. On the third day she commenced menstruate, and she said she had less pain with menstruation than she had had at any time for years. The temperature arose to 100.6° at one time and at another to 100.2°; the next morning it was 99° and in a short time it became normal.

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SELF-KILLING BY A LUNATIC is declared by the supreme court to be accidental death, and, therefore, a life insurance policy is not thereby vitiated.



## CITY HOSPITAL REPORTS.

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GUNSHOT WOUNDS OF ABDOMEN INVOLVING THE LIVER. LOCALIZED  
PERITONITIS, PLEURITIS, PYOTHORAX, FECAL FISTULA.  
RECOVERY.

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BY H. C. DALTON, M. D., Superintendent.

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T. H. aged 21, American, single, bartender, on the night of May 21, while standing three feet from and almost facing an adversary, but being turned slightly towards the right, was shot by a pistol of 38 calibre. The bullet entered the abdomino-thoracic wall immediately below the ensiform appendix, the right margin of the wound being in the median line. The probe passed in 4 cent. ( $1\frac{1}{2}$  inches) and showed the direction of the bullet to have been downwards, backwards, and to the right — in the direction of the liver. Examination of the clothing showed that the bullet had pierced a vest, shirt, and undershirt, making rectangular tears and removing from the corner of each a small portion of the cloth. Patient was weak but not collapsed, pulse was 86 and rather weak. He suffered no pain in the neighborhood of the wound, but both shoulders, and especially the right, pained him severely, the lower portion of the hypogastric region was also slightly painful. There were no tympanites, nausea, or symptoms of internal hemorrhage. The urine was healthy. Dr. H. H. Mudd was called in consultation, and advised that laparotomy be deferred for further developments. Sufficient morphia was given to produce rest, and later aconite was given to quiet a bounding pulse. Nothing to eat or drink was allowed for nearly three days. He was given small quantities of ice when thirsty; enemata of beef extract were administered. The patient had been excessively irregular in habits both in drinking and in venery. His temperature, which on the morning of the 22d was  $36.2^{\circ}$  C. ( $97.3^{\circ}$  F.), rose towards evening to  $38.5^{\circ}$  C. ( $101.3^{\circ}$  F.). It then vibrated during the next six days between  $38^{\circ}$  C. ( $100.4^{\circ}$  F.) for the morning and  $39^{\circ}$  C. ( $102.2^{\circ}$  F.) for the evening. Pain and tenderness, limited to the upper part of the abdomen, developed in the first twelve hours. A severe chill occurred on each of the 1st, 2d, and 3d days of the illness and on the 7th day evidences of approaching icterus were noticed; this developed very rapidly and to a marked degree. It was accompanied by loss of appetite, coated tongue, and nausea. The bowels had been moving about every other day. There was no indication of an accumulation of blood in the abdominal cavity so far as percussion could determine. Stimulants

were added to milk given, by this time, in as large quantities as he would take. His condition became worse, the abdomen grew more tympanitic and tender, his temperature continued high and the pulse frequent (110) and weak. Dulness in the right thorax led to an explorative aspiration of that pleural cavity, and 640 cc. (21 oz.) of offensive, decomposing blood, mixed with serum, were withdrawn. A second puncture (aspiration) was made in the right lumbar region, midway between the costal border and the crest of the ilium, and 40 cc. ( $1\frac{1}{3}$  oz.) of bloody pus were withdrawn. This proved to be of great temporary benefit to the patient; but, a re-accumulation of the fluid took place together with the reappearance of the hectic symptoms. An incision into the retro-peritoneal space of the right lumbar region was made by Dr. H. H. Mudd and 1100 cc. (36 oz.) of sero-purulent fluid evacuated. Digital exploration of the cavity whence it came, discovered the bullet which was readily removed. An incision was then made into the 8th intercostal space, axillary line, from which flowed 120 cc. (4 oz.) of fluid similar in appearance to that drawn from the abdominal cavity. Drainage tubes were introduced in both openings. The discharge became so profuse and offensive that two dressings a day were necessary. These cavities were washed out by a bichloride solution of 1 to 2000, and dressed antiseptically. The jaundice, which had been diminishing for a week before this, disappeared rapidly thereafter, and for a while the patient's condition improved very much. On the 4th day after the operation fluid could be easily forced into one tube and out the other, showing the connection between the two openings through the diaphragm. Twelve days after the operation the secretions from the lower opening were deeply tinged by a mixture of bile. About the same time, while at stool one evening, he heard air gurgling through the tube in the lumbar region, and at the next dressing fecal matter was found mixed with the discharge. It had come most probably from the colon near the focus of the inflammation. Daily washings of the wounds, tonics, and stimulants, with nutritious diet, composed the treatment, to which he began to respond about June 25, after which he improved constantly and rapidly until his discharge on August 11. At that time there was a small piece of tubing,  $1\frac{1}{2}$  inches long, remaining in the lower opening, the upper one having closed some time before. The patient had then nearly recovered his health. I saw the patient three weeks after discharge and found him virtually well.

## EDITORIAL.

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### PRECOCIOUS MENSTRUATION AND CANCER OF THE UTERUS.

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Dr. Paul Bernard in a recent number (Aug. 14) of the *Lyon Médical* recites a case, and then discusses the question whether there is any etiological relation between precocious menstruation and cancer of the uterus.

A young woman, æt. 28, who came under his care for cancer of the uterus had presented from birth the curious anomaly of the appearance of the menses. The early appearance of cancer in one who had had such precocious menstruation, suggested a study of the possible relation of the two phenomena.

After a brief résumé of the history of precocious menstruation M. Bernard cites at some length observations made by M. Dr. Gautier, of Geneva, who divides the different forms of genital hemorrhage in young girls into four groups:

1. Genital hemorrhage of the new born female.
2. Precocious menstruation, that is, uterine hemorrhage recurring regularly, almost always monthly, during a longer or shorter period, independently of all premature puberic development.
3. Hemorrhages produced by the presence of tumors of the genitals.
4. Precocious maturity, that is the premature development of the whole organism concurrently with menstruation and ovulation.

The following table from Gautier's paper gives the ages at which menstruation appeared in twenty-four cases of precocious menstruation.



1st year	5 cases	$\left\{ \begin{array}{l} \text{1st week of life} \\ \text{one month} \\ \text{four months} \\ \text{nine months} \\ \text{one year} \end{array} \right\}$	each one.
2nd year	4		
3rd "	3		
4th "	4		
5th "	3		
6th "	3		
7th "	2		
	<hr/>		
	24		

This table shows that precocious menstruation occurs as well in the first as in later years. Most of the children belong to the poorer classes, but there is nothing known of the predisposing or exciting causes of the appearance of the menstrual flow.

The following table shows the duration of regular menstruation in the twenty-four subjects cited by Gautier.

Menstruated for three months	three children
" " five "	two "
" " six "	one "
" " several "	two "
" " one year	one child
" " nineteen months	one "
" " two years	one "
" " four "	one "
" " five and one half	one "

Having persisted until the time when the child disappeared from observation. 10 children.

Termination by death was noted five times.

No autopsies having been made, absolutely nothing is known as to the state of the Graafian vesicles in subjects who have menstruated prematurely. It seems definitely settled that the menstrual function is composed of two phenomena, the ovulation and the gen-

ital hemorrhage. These two phenomena are independent the one of the other but are due to the same cause. As M. Auvard has remarked, "a genital flow simulating the menses can no more be called menstruation than can ovulation without hemorrhage." That which we call precocious menstruation might perhaps then be better called pseudo-menstruation.

Dr. Gautier's conclusions are that a flow with regular monthly return may be observed in little girls even from birth; that this flow, lasting from one to five days, is preceded by multiple sensations of discomfort analogous to those which announce the menses in mature women; that it is consistent with a normal state of general health, and may persist for an indeterminate length of time without being accompanied by a premature development of the body and genital organs.

Then follows the report of M. Bernard's case:

Mme. B.'s mother has always enjoyed good health, and her menses appeared at about the age of twelve years. She has had thirteen pregnancies and nine of her children are alive. No one of her daughters has presented an anomaly like that of Mrs. B. who was the last but one of her children. The father died of a fall in full vigor. While pregnant with Mme. B. Mme. X. suffered much from ennui, and the death of her brother occurred at that time causing her deep sorrow. Mme. B. was born at term and in perfect health. She belonged to the easy class of society.

Some days after the birth of Mme. B., her mother, in changing her garments, noticed some drops of blood. She thought at first that her older daughter in playing with her little sister had accidentally wounded her, but on looking more carefully she was convinced that the external genitals of the child were bathed in blood. Disquieted by this discovery she had the child examined by Dr. M. who said that her child was a little phenomenon, but that she need not disturb herself concerning this precocious hemorrhage.

The bloody flow lasted about two days and was accompanied with pains in the belly, nocturnal agitation and insomnia. Start-

ing from this time the return of the bloody flow occurred periodically each month, and menstruation a little later had the same duration. At these epochs Mme. B. experienced the precursory symptoms of the menstrual molimina similar to those which young girls feel. On placing her in school her mother informed the principal of the anomaly which her daughter presented, and when she was indisposed she remained in her room and was excused from all work. The child did not manifest any premature development of organization and especially of the external genitals. This case then belongs to the second group of M. Gautier's classification. It is an example of premature menstruation and not of precocious maturity.

Menstruation persisted regularly till the age of nine years. At this time she fell from a balcony twenty-five feet high. The mother thinks that the child was menstruating at the time of the accident. However this may be the menses ceased for two years. At twelve years they reappeared and were definitively established.

Menstruation was then quite irregular, delays of eight to fifteen days frequently occurred. There were leucorrhœa and general symptoms of anemia. She was married at the age of twenty, and her husband, who was syphilitic, communicated the disease to her. This lady never became pregnant. Her husband took the utmost precautions, moreover, that she should not become so. It should be added that the lady, who was of an essentially nervous temperament, was very much given to the pleasures of love. Her general condition was good until the early part of July 18—.At this epoch she felt at the site of the uterine neck a pain at first dull and transient which soon became more acute and radiated into the loins. The leucorrhœal flow, which had disappeared since her marriage, reappeared very abundantly. It was slightly tinged with blood and had an extremely fetid odor. Mme. B. at first referred these symptoms to a fall which she had had sometime before. Then, at the instance of her mother, she consulted a physician. A diagnosis of polypus was first made; but after many and minute examinations



made by medical celebrities, doubt no longer existed: it was unfortunately an epithelioma of the neck. The result confirmed this diagnosis. The pains increased in intensity; the flow was more abundant and more fetid, the straw yellow tint of the skin became characteristic. This lady succumbed eight months after the commencement of the disease in a state of most pronounced cachexia at the age of twenty-eight and one-half years.

If we seek in works on obstetrics and gynecology the age most favorable for the production of uterine cancer, we find that it is at the time when sexual activity has taken its complete development that this affection reaches its maximum of frequency.

He then gives a table showing the statistics of cancer at different ages as gathered from various authors, from which it appears that it is during the ages from 40 to 50 years, that cancer of the uterus attains its greatest frequency. It is, on the contrary, rare at puberty and adult age; yet there is always a certain number of facts which demonstrate undeniably that it may be met at this period of life. Colombat and Payet think that uterine cancer may appear at every age, and have observed it in young women at puberty. This is also the opinion of Bayle and of Barnes. Wigand has observed cancer of the uterus in a woman of 25 years and in a young girl of 14. Carmichael has observed it at 21 years, Gusserow in two persons at 19 and 17, and Cruveilhier at 26. In the statistics collected by Brierre occur four cases of cancer in children of 5, 7 and 8 years.

Mr. Heckford, of London, in 1868, presented to the Obstetrical Society an observation of cancer of the uterus and vagina in an infant of nine months, and there is in a museum in England a specimen of cancer in a child of ten years.

No doubt a certain number of the cases are questionable, and in consulting, for example, the statistics of Boivin and Dugés where 12 cases of cancer of the womb are cited under 20 years, one can but admit with Lebert that these authors must have confounded other diseases of the womb with cancer. However this be, cancer may exist in women under 20 years and at adult age, but this is

exceptional, and when one meets such a case he should seek a plausible cause.

Among the predisposing local causes of uterine affections all authors have noted menstruation and menstrual anomalies.

"Congestion," says Aran, "may be regarded in two aspects; sometimes it is associated with an actually existent malady of the uterine system, of which it is only an epiphenomenon or of which it constitutes a complication, of which it retards or prevents the cure: sometimes it exists primarily in the uterus or uterine system, and facilitates the development of new affections. It constitutes properly speaking, an element of uterine diseases, and becomes one source of therapeutic indication." As to the etiology of cancer Courty thinks there is no causal relation between inflammatory and cancerous diseases of the uterus. "We do not find," he says, "that alterations of menstruation or other uterine disease have been observed more often in patients affected with uterine cancer." He recognizes that it is often found in the case of patients whose menstruation has been precocious and abundant.

Lebert, who had carefully noted in cancerous patients the epoch of the establishment of menstruation, has given the following figures: In four patients the menses appeared before 11 years of age; in 11 patients between 12 and 14 years; in four from 14 to 16 and in eight from 16 to 20 years. In this number there were 13 in whom the commencement of menstruation had been accompanied with some trouble which persisted to a greater or less degree for a long time. In three it was habitually irregular; in six it was accompanied with pains and colic during the first days; in four finally the periods were habitually abundant. Lebert concluded that these were only physiological variations to which no influence could be attributed as to the production of cancer.

Martineau thinks that the normal performance of the physiological functions of the uterus sometimes suffice for determining a development in this organ of a constitutional disease, of a diathesis. This view is also shared by A. Guérin, who recognizes

that in a general way every excitation which produces a vital hyperactivity of the uterus is a cause of uterine cancer.

In the patient who is the subject of this communication, the uterus instead of entering into activity about the age of 14, has been ever since birth the site of fluxionary phenomena. May not the abnormal functioning of this organ explain the premature development of the cancerous affection? In reality, if this woman had not menstruated till puberty, the cancer of the womb, instead of developing at 27 years old, would only have manifested itself a dozen years later, that is to say, about the age of 40 years, or the epoch when this affection reaches its maximum frequency.

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#### THERAPEUTIC APPLICATIONS OF ANTIPYRIN.

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In a communication to the Académie de Médecine de Paris, September 7, 1887, (L'Union Méd. Sept. 10, 1887,) Prof. Germain Sée referred to a former communication in which he had called attention to the value of antipyrin in the treatment of different forms of headache, observations confirmed by the experience of M. Dujardin-Beaumetz. He then proceeded to discuss the therapeutic uses of antipyrin and to compare it with antifebrin.

1. *Acute and Chronic Articular Rheumatism, Gout and its Paroxysms.*—Observations of numerous physicians in different countries having shown that not only the fever was reduced but *pari passu* the swelling and articular pain abated, the question arises which morbid element of the disease is controlled by the remedy. While salicylic acid presents an incontestable superiority in febrile articular rheumatism, the antipyrin manifestly surpasses it in rheumatic affections without fever. He says he has seen thirty patients treated at once by the hypodermic injection of antipyrin repeated two or three times a day in the dose of 30 centigrammes (gr. ivss.) and at the same time 3 to 4 grammes (grs. xlv to ʒi.) of the same internally, who all claimed an almost immediate abate-



ment of the local and general pain, and recovered their power of movement in twenty-four hours, with disappearance of the pain, articular inflammation and often even of the synovial effusion. In order to prevent relapses which occur so often, all patients should continue for ten or fifteen days the internal and daily use of 3 grammes (gr. xlv.) of antipyrin without any local treatment or external application. This remedy then is not simply palliative but curative.

The domain of antipyrin is in acute or subacute articular rheumatisms, in which it acts with certainty, both reducing the inflammatory swelling and suppressing at once the pain. Prof. Sée is disposed to think that it has a favorable influence in preventing the development of cardiac complications, though having no effect upon cardiac troubles resulting from previous attacks.

Comparing the results of treatment with salicylates, antifebrin and salol he says:

1. The salicylate treatment presents a certain superiority in grave, articular, generalized, febrile rheumatisms; but if the heart has fallen into a condition of asthenia, or if it presents a previous debility, a trouble of compensation, following old valvular lesions, he would not given it. The salicylate is a depressor of the heart's motor power. In these cases antipyrin, which never produces the least disturbance of the heart muscle, offers incontestable advantages over the salicylate.

2. Antipyrin, by the benignity and harmlessness of its effects, by the certainty of its action, compared to the salicylate evidently excels in the apyretic rheumatic affections. We may continue its use with impunity. We may use it in subcutaneous injections provided they are made slowly in the indicated proportions.

3. Antifebrin, which has recently been brought into use in all kinds of rheumatism, offers no real advantage over antipyrin.

4. Salol, the last of the series, is distinctly inferior to all the other antirheumatics, and is not to be taken into account any more.

He notes here that antipyrin, like salicylic acid, while a powerful antirheumatic remedy, has no remedial action upon those internal lesions which are recognized as being of rheumatismal origin, chorea, for example.

Cases of chronic arthritis, dry or with synovial swelling, have yielded to the use of this agent in doses of 4 grammes (3i) a day for a few days. He has also had good success in treating gout with antipyrin, so far as relief from pain is concerned.

II. *Lumbar or Dorso-Intercostal Pains, Sciaticas.*—In nervo-muscular pains and neuralgias the effects of antipyrin are often instantaneous. So lumbagos, whatever the origin and date, were cured immediately after the injection of 30 centigrammes (gr. ivss.) of antipyrin with 3 grammes (gr. xlv) of the same internally. The same is true also of the dorsal and intercostal pains which are observed in persons who are fatigued, or hysterical, and they do not always need the injections.

Inveterate or recent cases of sciatica may yield also to the hypodermic and internal use of antipyrin. In twenty-three cases Prof. Sée has seen only two that refused to yield to this treatment.

III. *The Neuritis of Ataxic Patients.*—Prof. Sée has seen the fulgurant pains of ataxic patients completely relieved by the use of antipyrin, though it has no effect to stay the course of the disease.

IV. *Visceral Pains.—Hepatic, Nephritic, Gastro-Intestinal, Uterine and Visceral Colics.*—Prof. Sée and his assistants have found the injections of antipyrin very prompt in securing relief of the spasmodic contractions which seem to be largely the cause of the intense suffering in these forms of colic. The severe pain being relieved by the injections he recommends the administration of antipyrin internally, one gramme in ice water four times the first day, and three times a day for a week or ten days afterwards. The pains which generally follow the severe attack, though more tolerable, yield to this treatment, and the patient is relieved until the occurrence of another attack. In cases of nephritic colic he uses the same treatment, giving a hypodermic

injection first, and when the diminution of nausea permits it, administering internally two or three grammes, (grs. xxx-xlv.) of the antipyrin. The attack is cut short in ten to twenty minutes, and the pain ceases with all the attendant symptoms. He says he has not seen this treatment fail in a single instance.

In cases of membranous dysmenorrhea the administration of antipyrin by enema in doses of one and a half gramme gave almost immediate relief. In some cases of severe pain associated with dyspepsia he has found relief from the administration of antipyrin with bicarbonate of soda, half a gramme (gr. viiss.) of each, at the commencement of the meal; and in cases of flatulent colic with constipation he has given prompt relief with antipyrin, but has always found it necessary to administer large doses, generally giving one gramme (gr. xv.) every three hours.

V. *True and False Angina Pectoris*.—Prof. Sée finds antipyrin an effective agent for the relief of those painful stitches in the cardiac region which are due to such causes as hysteria, chlorosis, etc., those associated with thoracic aneurisms and also in certain cases of true angina pectoris.

Certainly the observations of this eminent clinician evidence that the therapeutic scope of antipyrin is much more extensive than was at first supposed, and if further experimentation shall prove, as he believes, that the wide range of painful affections indicated above is amenable to treatment with antipyrin, it will be a most valuable addition to the resources of the profession.

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## DIABETES.

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One of the most valuable papers read before the Section in General Medicine at the Washington meeting of the International Medical Congress was that by Dr. Pavy, of London, Eng., whose eminence in the treatment of renal diseases is so well known on both sides of the ocean.



For the following abstract of this paper on diabetes we are indebted to Wm. Wood & Co., of New York, who kindly furnished advanced proofs of the reports prepared for the *Medical Record*:

This disease has always been regarded as an inscrutable one. There are still many points open for earnest study and patient investigation. The nature of the disease is that of faulty disposal and assimilation of food elements. Foods taken into the body are classed as nitrogenous, fatty and the carbohydrates. It is this latter class that specially concerns us in diabetes. Starch-dextrine, lactic and cane sugar go to make up this group, and each has an equal action, when ingested, in causing the condition of diabetes.

Normally the carbohydrates are disposed of in the portal vein, from whence they are carried to the liver and there assimilated. Experiments in which defibrinated blood or oxygen have been injected into the portal vein have been followed by marked evidences of sugar in the urine. Similar results have been produced in animals by forced respiration, thereby supersaturating the blood with oxygen. Vaso-motor paralysis of the hepatic vessels, by causing an excess of blood, prevents the proper deoxygenation of the blood, and similarly causes sugar to be present in the urine. This condition allows the carbohydrates to be converted into sugar and pass through into the general circulation.

In the celebrated experiments of Bernard, in puncturing the floor of the fourth ventricle, he also noticed a vaso-motor paralysis of the hepatic vessels. It is noticeable that in those cases of vaso-motor paralysis of the chylopoietic system where there is a red tongue, the disease is more severe, undoubtedly owing to the fact that the paralysis has extended more generally throughout the circulatory system.

In health there is only a faint trace of sugar in the blood and the urine. The latter is always a reliable index as to the amount of sugar in the blood. In diabetes the sugar reaches the blood directly without going through the process of assimilation in the liver. In health, sugar is stopped before it enters into the general

circulation, but in diabetes it is found in the blood directly in proportion to the quantity of carbohydrates taken. Sometimes even in health there is sugar in considerable quantity in the urine, in cases where there have been taken very large quantities of the carbohydrates, showing that there is a normal limit to the assimilative power of the liver, which, if exceeded, will result in a diabetic condition. The liver is a fat- rather than a sugar-producing organ, converting animal starch into sugar and then into fat. The liver is different from other organs in that it has small arteries and large veins. The contents of the portal vein should be in a decidedly venous condition, otherwise we will get sugar into the general circulation.

Diabetes is of a neurotic origin, and it is well established that nervous conditions influence in a material manner the condition of the patient.

In considering these cases the first thing to do is to test for sugar in the urine, and in order that we may fully appreciate the progress of the case this test should be a quantitative one.

In selecting urine for examination it is necessary to procure both an evening and a morning specimen. It frequently occurs that sugar is only present directly after the taking into the body of carbohydrate foods. It is owing to the fact that specimens of urine are procured at different times and after different conditions of diet that physicians differ so often in the diagnosis of diabetes. Among the various tests for sugar probably the most accurate is the copper test, in the form of Fehling's solution. The great objection is that this solution will throw down a precipitate on boiling, which is very liable to mask the test. In order to obviate this I have had pellets made of the solid ingredients of this solution, in an anhydrous form, such as can be at any time dissolved in water for use.

When patients come to us we should not ask them, but tell them what they have been eating or drinking. This can be accurately done by the quantitative test. This is best and most easily accomplished by the decolorization test, made in the following way:

At the bottom of a long graduated pipette is attached a tube running into a flask containing a given quantity of a solution of sulphate of copper, differing from Fehling's solution only in containing ammonia and potash instead of the latter alone (in order to prevent the precipitation of the oxide); at the upper part of the flask is placed an escape-tube. At the rubber tube through which the urine escapes into the flask is placed a compressor controlled by a screw, which regulates perfectly the flow of the urine. After the copper solution is brought to a boiling point, by a flame placed underneath the flask, the urine is allowed to enter the flask, drop by drop, until the copper solution is exactly decolorized. By reading upon the graduated pipette the amount of the urine which has been necessary to decolorize the known quantity of copper solution, we can form a proportion by which an accurate estimate can be made of the contained sugar. By this means we can follow the course of the disease even more accurately than the clinician who, with his stethoscope watches, from day to day, the progress or retrocession of pulmonary disease.

It is well to note, in passing, that in diabetes we sometimes find albumen in the urine, and this is often present just in proportion as the patient improves or gets worse. A test for albumen, which has no known fallacy, is that with citric acid and the ferrocyanide of sodium. The objections to the nitric acid test are that it may precipitate either uric acid or the oleo-resins. In the above test, if a pellet of citric acid is dissolved in the urine and boiled, we may then get a precipitate of uric acid, but upon the addition of the ferrocyanide of sodium, the solution invariably clears up unless albumen be present.

In considering the disease itself, we find it has different grades and intensities. The liver, in health, has not unlimited control in the assimilative power over the carbohydrates, and diabetes may be said to exist when that power is below the ordinary. When a person first comes to have diabetes, as we have stated, it is through faulty assimilation; it does occur, however, that as the disease pro-



gresses, the sugar is formed from the tissues themselves, as is proved by its constant presence when the patient is upon a strictly meat diet.

Age influences greatly the occurrence of the disease. Out of 1360 cases tabulated, forty-five per cent occurred between forty and sixty years of age. Age also affects prognosis; young subjects rarely recover, the disease ordinarily terminating in two years. In old people the prognosis is more favorable, many recovering. One reason, possibly, for the tendency of children to do badly is that they take unsatisfactory care of themselves, while elderly persons are oppositely inclined.

Diabetes sometimes commences in a very mild form, and may exist for a long time unrecognized. How do we know it is not recognized? It is said that bootblacks in hotels become expert in recognizing diabetics by the white stains on their shoes and clothing, caused by stains from their urine.

Then, too, diabetes runs in families in a very marked manner. One of the most striking instances of this was in a family which came under my observation, where the grandmother, the mother, and four out of her five children died of diabetes.

Recently I have found many cases beyond the middle period of life having pain in their limbs, which were formerly called neuralgia; they also have an irregular gait, somewhat ataxic. They sometimes feel as if they wanted to "gather themselves together," so that they may walk without giving their friends the impression that they have been taking too much. Again, they have the peculiar symptoms of pain in their extremities and "throughout the bones," which are much worse when they get warm in bed. This probably is, or is analogous to, a peripheral neuritis.

In treating young subjects we must try merely to stay the disease; we cannot stop it. We take away the sugar, the patient temporarily improves, and believes himself cured. He is borne up only by false hopes.

In young subjects it seems to have a progressive character, not unlike progressive muscular atrophy, or locomotor ataxia.

For elderly patients we can do much. Appropriate diet is absolutely essential. Sweets, pastry, puddings and bread must be interdicted, while meat, eggs, poultry, butter and cheese may be taken. In regard to milk it must be remembered that it contains lactic sugar, and, therefore, also cannot be taken.

In regard to bread, the gluten and almond breads, especially the latter, are preferable. Gluten bread may be considered of a good quality if containing only thirty-three per cent of starch. I have found that many times patients paying a high price for their bread get an inferior quality, containing from sixty per cent to eighty per cent of starch. Almond is far preferable, containing fifty per cent of fatty matter, and only seven per cent or eight per cent of carbohydrates. So you see, gentlemen, we must have the proper means with which to carry out our treatment successfully. The medicinal agents which I give are opium, morphia and codeia. Whether due to the natural history of the disease I cannot tell; but I think they exert a restraining influence over the disease.

If the sugar disappears from the urine I commence to give my patient two ounces of bread daily; if, after a few weeks or months, I still find no sugar, I give him three ounces of bread, increasing in this manner until I give him six ounces, with which quantity he must remain content.

If the bread causes the sugar to reappear, it must not be taken.

We have seen that if there is sugar in the urine, it must be proportionately so in the general circulation. An excess of sugar in the blood predisposes to disease. The patient is then "ripe for anything wrong."

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#### AMYLENE HYDRATE.

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This is the most recent addition to the list of hypnotics and if the future shall confirm the present indications it promises to be one of the most valuable. The *Therapeutische Monatschrift*, July, 1887, contained the first report of it at the hand of Prof. J. von Mehring.

It was discovered by Wurtz, and belongs to the group of tertiary alcohols, being formed by treating trimethylethylene with sulphuric acid. A more correct scientific name for it would be dimethylethylcarbinol.

It is a clear, colorless liquid with a penetrating odor suggestive of camphor, peppermint and paraldehyde. Its specific gravity is 0.81; and the boiling point  $102.5^{\circ}$  C. It is soluble in eight parts of water and mixes with alcohol in all proportions.

Von Mehring has been experimenting with this drug both upon animals and men during two years past; and he now states as the result of his observations that as a hypnotic, amylene hydrate stands midway between chloral hydrate and paraldehyde, one gramme of chloral hydrate being equivalent to two grammes of amylene hydrate or three grammes of paraldehyde. Respiration and pulse rate are scarcely at all affected by the use of this drug, its action being apparently limited almost wholly to its effect upon the cerebrum when given in therapeutic doses. When larger doses are administered, the action extends to the medulla oblongata, reflex action disappears, respiration becomes slower and the heart's action ceases. Von Mehring states that he has even administered the drug to patients with extensive heart-defects with most satisfactory results.

Von Mehring has administered the drug to sixty different individuals in doses varying from three to five grammes (50 to 90 drops), and in various affections from the sleeplessness of nervousness to delirium tremens, and the insomnia of various febrile diseases. In four cases of the sixty it was inefficacious. It resembles chloral in being unreliable when the insomnia is due to or is associated with pain.

Its taste is less disagreeable than that of paraldehyde, and the exhalations after taking it are also less unpleasant. Its freedom from danger and its greater palatability make it preferable to chloral and paraldehyde though it is a weaker hypnotic than chloral.

Von Mehring suggests the following as formulæ for its administration by the mouth or by the rectum.



R	Amylene hydrate.	-	7 grammes	(gr. cv.)
	Aquæ destillat.	- -	60 "	(℥ii)
	Ext. liq.	- - -	10 "	(℥ijss)

M. Sig. The half to be taken at night for sleeplessness.

R	Amylene hydrate.	-	5 grammes	(gr. lxxv)
	Aquæ destillat.,	- -	50 "	(℥iss.)
	Mucil, gum. Arab.,	-	20 "	(℥v.)

M. Sig. For use as an enema.

Von Mehring claims that no unpleasant after effects of any sort follow the action of this agent, no nausea, vomiting, headache or gastric disorder.

Further observations by other practitioners must be made before the therapeutic value of this new hypnotic will be thoroughly determined, but it would seem thus far that it is a very valuable addition to our materia medica.

## PHENYL HYDRAZIN TEST FOR SUGAR IN THE URINE.

Dr. A. K. Bond in a recent number of the *Medical News* calls attention to a new practical mode of testing for sugar in urine which has been suggested 'by Prof. R. Ultzmann. The test is phenyl-hydrazin chloride, which was introduced to the profession by Emil Fisher and applied to the examination of urine by P. Grocco and R. von Jacksch.

While Fehling's test is amply sufficient as a negative test, *i. e.* when no reduction occurs on adding this test-liquid to a specimen of urine, we are sure that there is no sugar present, it is not equally satisfactory as a positive test, for there are other substances which will reduce the copper of the Fehling's test liquid. The phenyl-hydrazin chloride test is a perfectly satisfactory positive test being as delicate as the Fehling's test and giving its characteristic reaction with no other substance found in the urine than sugar.

Dr. Bond describes his method of making the test as follows:

I pour the phenyl salt—which is a dry substance resembling bran—into an empty test tube until the tube is filled to the distance of about four-tenths of an inch from the bottom, and add crystals of sodium acetate, ground fine, to an equal height. Upon this I pour the urine—clear or cloudy—until the tube is half full. This gives, in a test tube five inches long, about the following proportions in weight: 1 part phenyl salt, 2 parts sodium acetate, 15 parts urine. Shake the tube until the crystals of sodium acetate are dissolved, then heat gently over a low flame until the mixture boils, and boil it for about half a minute—whether it becomes clear or not makes no difference. I then cover the tube and let it stand, and, after a proper interval examine the sediment with the microscope. If sugar is present there will be seen first fine, bright yellow needles, which branch out or are joined by others as they are formed, until the field is dotted with groups like delicate sprays or sheaves, or radiating from a center. A magnifying power of 200 diameters is sufficient for this study.

Dr. Bond has found by numerous experiments that when sugar is present to the amount of one fifteenth of one per cent., the crystals may be found fifteen minutes after the test is made, and that in all cases in which sugar is present to the amount of one-fortieth of one per cent or more, the crystals may be found, though it may be necessary, when the amount of sugar is extremely small, to let the mixture stand for as much as forty-eight hours after boiling.

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**CHOLERA IN NEW YORK.**—Friday morning, Sept. 23, 1887, a vessel arrived at New York having had on the voyage eight deaths from Asiatic cholera, from Naples, Italy, which port she left Sept. 3. Several other cases of the same disease were on board when the vessel came into port. The vessel was ordered to the lower bay, the sick were taken to the hospitals on Swinburne Island, and the rest of the 561 steerage passengers, as also the cabin passengers, three in number, and the forty-five survivors of the crew were landed on Hoffman's Island. The vessel and cargo were thoroughly disinfected.

## BOOK REVIEWS AND NOTICES.

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A TEXT-BOOK OF MEDICINE for Students and Practitioners. By ADOLF STRUEMPELL. Translated by permission from the second and third German edition by HERMAN F. VICKERY, A. B., M. D., and PHILIP COOMBS KNAPP, A. M., M. D., with editorial notes by FREDERICK C. SHATTUCK, A. M., M. D. With one hundred and eleven illustrations. New York, D. Appleton & Co., 1887, 8vo., pp. 981; cloth.

While it could not be said that there was felt in the profession any special want for a new work on the practice of medicine, it is still true that there is always room for a work from the hand of a close student and careful observer of disease and its phenomena and treatment with ample material at his command. Again, as the years pass on, constant advances are made, and in different countries different modes of treatment are in vogue, so that he who would be best equipped for service must be familiar with the thought and practice of the leading men of different countries.

The work now before us is one of the very best treatises for the use of advanced students or practitioners that has been issued from the press; and the profession of our own country and Great Britain are under obligations to the translators for making accessible to them this valuable work of the eminent German professor.

The work is worthy of as general distribution in our own country as it has received in Germany where it has reached a third edition in a short time.

The section on Diseases of the Nervous System is the most complete and exhaustive of any part of the book, occupying about one-third of the whole space. In fact this is the ablest and strongest part of the volume. Dr. Shattuck, the editor, claims that there is no other treatise now in print which discusses these affections so fully, concisely and clearly, and we think that the general verdict will be that he has not estimated the work too highly in this respect; though it may be justly said that rather an undue share of the space is devoted to this department.

For American readers the value of the volume is materially en-



hanced by the notes of the editor, in which attention is called to the work of American and English physicians. The translators have added chapters on sunstroke, yellow fever and dengue.

We commend the book to our readers as an addition to medical literature of very considerable value.

REFERENCE HANDBOOK OF THE MEDICAL SCIENCES, Embracing the entire Range of Scientific and Practical Medicine and Allied Science. By Various Writers. Illustrated by chromo-lithographs and fine wood-engravings. Edited by ALBERT H. BUCK, M. D. Vol. V. New York, William Wood & Co., 1887, 4to., pp. 813, cloth.

This reference handbook is a treasury of good things; and as with the appearance of each successive volume the work more nearly approaches completion, we are more and more fully impressed with its value. The several articles which we have examined are thoroughly prepared and well written. It is not to be expected that all parts of the volume will be of interest to any one practitioner. Probably no one except the editor and proof reader has read or ever will read all the articles in the volume; but if others are as fortunate with regard to articles which they may have occasion to examine as we have been, they will be like ourselves, thoroughly satisfied and gratified with the volume and with the whole series.

INDEX-CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE, UNITED STATES ARMY. Vol. VIII. Legier-Medicine (Naval). Washington Government Printing Office, 1887. 4to., pp. 1078, cloth.

This volume includes, as stated by Dr. Billings in the preface, 13,405 author titles, representing 5,307 volumes and 13,205 pamphlets. It also includes 12,642 subject titles of separate books and pamphlets, and 24,174 titles of articles in periodicals.

This is another volume of a work whose value can hardly be overestimated, a work which could neither be prepared nor published by private individuals, a work for the conception and execution of which we are indebted to Dr. Billings, of the U. S. Army.

MEDICAL ELECTRICITY. A Practical Treatise on the Application of Electricity to Medicine and Surgery. By ROBERTS BARTHOLOW, A. M., M. D., LL. D., etc. Third edition, enlarged and improved. With one hundred and ten illustrations. Philadelphia, Lea Brothers & Co., 1887, 8vo., pp. 304, cloth, \$2.50.

The medical profession owes to Prof. Bartholow much for the work that he has done in electro-therapeutics; and much again for

the presentation in so available a form of the results of his experience. Dr. Bartholow is not only an able therapist, but an admirable teacher, and presents his views in a way to command attention. This volume is a valuable introduction to the intelligent use of one of the most valuable agents at the command of the physician.

FIRST ANNUAL REPORT OF THE STATE BOARD OF HEALTH AND VITAL STATISTICS OF THE COMMONWEALTH OF PENNSYLVANIA, Harrisburg, 1886, 8vo., pp. 361; cloth.

This volume contains a number of exceedingly valuable and interesting papers, among them the official reports concerning the epidemic of typhoid fever at Plymouth, and the report of the Committee on Water Supply, etc.

ELEMENTARY MICROSCOPICAL TECHNOLOGY. A Manual for Students of Microscopy. By FRANK L. JAMES, Ph. D., M. D. St. Louis Medical and Surgical Journal Co., etc., 8vo., pp. 107, cloth.

This book constitutes part I of a work on General Microscopical Technology, whose object is to teach the preparing and mounting of microscopical specimens or, as the author puts it, the technical history of a slide from the crude materials to the finished mount. As it presupposes no acquaintance with the subject by the student, the author has clearly and carefully explained every detail, so that the intelligent tyro in any department of microscopy will here find valuable elementary instruction. The author is well known as an active worker in microscopy, and has not only used what is best in modern methods, but introduced some decidedly original and clever ideas that will commend themselves to all microscopists.

The appearance of the volume is not satisfactory, the proof-reading is very poor in places, and the type used should have been fresher. It is indexed in a peculiar but ingenious manner. We cordially recommend the book, especially to beginners who cannot afford a master.

A. N. RAVOLD.

TRANSACTIONS OF THE COLORADO STATE MEDICAL SOCIETY. Seventeenth annual Convention, Denver, June 1887, 8vo., pp. 124, paper.

A well printed volume, containing a number of carefully prepared and well written papers, among the most interesting of which we notice that on Pleurotomy, by W. M. Strickler, M. D., that on Cerebral Localization, by Dr. J. T. Eskridge, and the Report on Orthopedic Surgery by Dr. W. R. Whitehead. Dr. Denison's papers on the Bergeon Treatment of Consumption and on Intubation of the Larynx are also worthy of attention.

It is a noticeable fact that of the twelve papers presented at this meeting, including the president's address, nine were by residents of Denver. In the selection of a place for the next annual meeting, the Denver physicians very courteously left the choice to those not living in that city, and Colorado Springs was selected. It is to be hoped that the physicians in other parts of the state will take an interest in the society, and make it more truly a state society.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF THE STATE OF MISSOURI at its Thirtieth Annual Session, held at Macon City, Mo., May 10, 1887., 8vo., pp. 159, paper.

The volume of transactions of our own state society is a very creditable one.

Several of the papers have been given in our pages *in extenso*. We would call attention also to the paper of Dr. B. F. Hart, of Brownsville, on "The Proper Food of Infancy and Childhood, and Needful Sanitary Environments," and to Dr. Lutz's "Contribution to the Literature of the Rarer Forms of Abdominal Tumors."

LOMB PRIZE ESSAYS, 1885. We have already noted the fact that the American Public Health Association has issued a second edition of the volume of valuable essays to which the Lomb Prizes were awarded in 1885, as also that the separate essays have been published in paper covers. They may be procured from the secretary, Dr. Irving A. Watson, Concord, N. H., at cost price, the object of the association being to give as wide circulation as possible to the essays, and promote intelligent opinions on sanitary matters. Single essays, 10 cents; any two of the essays 15 cents; the four essays (paper pamphlets) 30 cents; in one cloth bound volume, 65 cents; in one volume handsomely bound and printed on extra heavy paper, \$1.00.

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## BOOKS AND PAMPHLETS RECEIVED.

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BOOKS.—Insanity. Its Classification, Diagnosis and Treatment. By E. C. Spitzka, M. D., etc. Second edition. New York, E. B. Treat, 1887. (Treat's Medical Classics.) 8vo., pp. 423, cloth, \$2.75.—Curability of Insanity. John S. Butler, M. D., etc., New York, G. P. Putnam's Sons, 1887. 18mo., pp. 59, cloth, 60 cents.—Transactions of the Medical Association of the State of Missouri at its Thirtieth annual Session held at Macon City, Mo., May 10, 1887. St. Louis. Ev. E. Carreras, 8vo., pp. 159.



paper.—Transactions of the Texas State Medical Association, Nineteenth annual session, held at Austin, Texas, April 26, 27, 28 and 29, 1886. 8vo., pp. 437, paper.—Diarrhea and Dysentery, by C. B. Palmer, M. D., Detroit, G. S. Davis, 1887, 12mo. sq., pp. 121, paper, 25 cents.—Index Catalogue of the Library of the Surgeon-General's Office, U. S. Army. Vol. VIII. Legier-Medicine (Naval). Washington G. Bureau, 1887, 4to, pp. 1078, cloth.—Bar's Antiseptic Methods in Obstetrics, by Dr. Paul Bar, translated by Dr. Henry D. Fry, Philadelphia, P. Blakiston, Son & Co., 1887, 8vo., \$1.75, cloth. (Boland.)—Diseases of the Eye, by Edward Nettleship, Philadelphia, 1887. Third American from fourth English edition, with Chapter for Examination on Color Perception, by Wm. Thompson, M. D. Lea Brothers & Co., 8vo., pp. 475, cloth, \$2.00 (Boland.)—Druit's Surgeons Vade Mecum, edited by Stanley Boyd, Phila., Lea Brothers & Co., 985, sheep.—The Delusion of Tonics. By Geo. H. Taylor, M. D., etc., New York, John B. Alden, 16mo., pp. 28, paper.—Massage. Principles and Practice of Remedial Treatment by Imparted Motion. By Geo. H. Taylor, M. D., etc. New York, John B. Alden, 1887, 16mo., pp. 173; cloth, 75 cents.—Physical Diagnosis of the Thoracic Diseases. By E. Darwin Hudson, Jr. A. M., M. D., etc. New York, Wm. Wood & Co., 1887, 8vo., pp. 162, cloth, \$1.50.—Diseases of the Mammary Glands, by The. Billroth, M.D., etc., and New Growths of the Uterus by A. Gusserow, M. D., vol. IX. of the Cyclopedia of Obstetrics and Gynecology. 8vo.; pp. 426, cloth, New York, Wm. Wood & Co., 1887.—Handbook of General and Operative Gynecology. By Drs. A. Hegar and R. Kaltenbach in two volumes, Vol. II., Operations on the Tubes, Uterus, Broad Ligaments, etc. (Vol. VII. of Cyclopedia of Obstetrics and Gynecology.) New York, Wm. Wood & Co., 8vo., pp. 354, cloth.—Reference Hand-Book of the Medical Sciences. Vol. V. Mil-Pot. Edited by Albert H. Buck, M. D., New York, William Wood & Co., 1887.—Lessons in Gynecology. Wm. Goodell, Philadelphia, D. G. Brinton, 8vo., pp. 579; cloth.—Differential Diagnosis. Manual of the Comparative Semeiology of the More Important Diseases. By F. de Haviland Hall, M. D., etc. Third American edition, thoroughly revised and greatly enlarged. Edited by Frank Woodbury, M. D., etc. Phila., D. G. Brinton, 1887, 12mo., pp. 255, cloth.

PAMPHLETS AND REPRINTS.—The Surgical Treatment of Chronic Follicular Pharyngitis. By R. Harvey Reed. (Columbus Med. Jour.)—Plant Chemistry as Illustrated in the Production of Sorghum. H. C. de S. Abbott. (Proceed. Alum. Assoc. of Phil. Coll. of Pharm.)—Plant Analysis as an Applied Science. Helen C. de S. Abbott (Journal of the Franklin Institute), Phila., 1887.—Maryland State Board of Health, 1887.—Oxygen as a Therapeutic agent. By P. D. Rothwell (Denver Med. Times).—Human Nature Library, No. 2, Phrenology, etc.—Abstract from the Transactions of the Medical Society of the State of New York.—Transactions of the Rhode Island Medical Society, Vol. III., Part IV., 1886.—Announcement of the Regular Session of 1888 of the Hospital College of Medicine, Louisville, Ky.—Annual Announcement of the Louis-

ville College of Dentistry, Louisville, Ky.—*Sur un Nouveau Traitement de la Metrite Chronique, etc.*, by Le. Dr. G. Apostoli,—Seventeenth annual Convention of the Colorado State Medical Society, 1887.—Report on Orthopedic Surgery to the Colorado State Medical Society (Trans. of Soc'y, 1887).—Remarks on Stricture of Rectum. (Brit. Med. Jour.)—By W. R. Whitehead, M. D., Denver, Col.—Surgical Treatment of Chronic Follicular Pharyngitis. By R. Harvey Reed, M. D., Mansfield, O. (Columbus, Med. Jour., Aug. 8.)—Intubation of Pharynx. Papers read before the New York Academy of Medicine, June 2, '87, by A. Jacobi, Joseph O'Dwyer, Francis Huber, Dillon Brown, W. P. Northrup, I. H. Hance and A. Caille. (Med. Rec., June 18, 25 and July 23, '87.)—The Human Nature Library, July, 1887. Fowler and Wells, 16mo., pp. 28, paper.—University of Pennsylvania. Veterinary Department. Catalogue and Announcement 1887-88.—Transactions of the Medical and Chirurgical Faculty of the State of Maryland. Eighty-ninth annual session, held at Baltimore, Md., April, 1887, 8vo., pp. 152, paper.—Biology of Tumors. By N. Senn, M. D., etc. (Med. Register.)—Buffalo Lithia Waters in the Treatment of Diseases of the Nervous System. By G. Halsted Boyland, M. D., etc. (N. Y. Med. Jour., Aug. 10, '87.)

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LOUISIANA STATE BOARD OF HEALTH.—The action of the International Medical Congress, urging upon the various governments an appropriation for the purpose of a co-operative investigation of the subject of inoculation against yellow fever, as advocated by Dr. Domingos Freire, is a well deserved endorsement of the course of the Louisiana State Board of Health and its secretary, Dr. Holt, who urged upon our government the appointment of a commission for that purpose with an ample appropriation to enable the commissioners to carry on their investigation efficiently. Though their efforts were only partially successful, Dr. Sternberg, than whom no other one would have been more acceptable, was sent as a commissioner to go to Brazil for that purpose, and has just returned. No doubt an account of his observations will be a most interesting part of the meeting of the American Public Health Association in Memphis.

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THE MEDICAL REGISTER announces that Dr. Wm. C. Wile, who has been thus far associated with Dr. Shoemaker, of Philadelphia, has removed from that city to Danbury, Conn., to settle near the home of his bride, and that he therefore withdraws from connection with the *Register*.

## SOCIETY PROCEEDINGS.

### ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting May 17, 1887, Dr. Leete in the Chair.

#### TREATMENT OF GONORRHEA, ETC.

*Dr. Ameiss* read a report of gynecological cases. (Vid. July COURIER p. 25.)

*Dr. F. A. Glasgow* said that that was a brilliant result, if it was truly a case of gonorrhea. But *Dr. Ameiss* referred to the dry treatment as "Dr. Engelmann's dry treatment," and says it is something new. He thought *Dr. Engelmann* was deceiving himself in that regard. It had been used many years. He himself had used it as long as he had had anything to do with gynecology, and in almost exactly the same manner that *Dr. Ameiss* had used it; and in some of the text-books a recommendation is given to pack the vagina in these cases after cleansing it thoroughly; sometimes even clay has been used in severe cases. It had been the custom at the St. Louis Mullanphy Hospital to use iodoform in these cases ever since iodoform has been in use at all, and previous to that the oxide of zinc and bismuth—bismuth not so long as oxide of zinc—but these were the first things that were used there, and that was certainly as long ago as 1877, and the results were very good. Now of course the difficulty of making a diagnosis between gonorrhea and vaginitis from any old cause always concerns us, and when the cure is so rapid, I think we may doubt whether we had a case of true gonorrhea. As a urethritis in the male, when it is cured in a few days, most physicians would consider to be simply a urethritis and not a gonorrhea, so it may be in this case.

In regard to the second case he did not see how the doctor's treatment would come in there nor why it was intimated that that was of a gonorrheal origin. How the treatment could be applied to salpingitis he could not understand, though it might be applied to endometritis. Iodoform, he considers one of the best germicides;



it is a preventive of the multiplication of micro-organisms though it does not destroy the vitality of the micro-organisms as corrosive sublimate does. He thinks we can hardly expect as quick a result as that in most cases of gonorrhea.

*Dr. Dixon* thinks it has been demonstrated recently that iodoform has very few if any antiseptic properties. A couple of Swedish doctors have demonstrated pretty thoroughly that microbes and bacilli not only exist but will thrive and propagate very freely in the powder itself. That does away with our theory of the antiseptic properties of iodoform, if their statements are true and we can depend upon them.

*Dr. Homan* recollected the case *Dr. Ameiss* reported as gonorrhea. That the coccus was present he was not prepared to say, because there was no microscopic examination made, but as to the profuseness of the discharge and very foul condition generally of the parts he was prepared to testify; and the results were certainly very speedy and very complete. Of course no positive opinion could be given whether it was true gonorrhea, though at the time the supposition was that it was true gonorrhea. He was somewhat surprised at the statement that there is no antiseptic property about iodoform; that it was not a germicide he was prepared to believe; that it was an antifermentative he thought was very clearly shown.

*Dr. Hulbert* was not prepared to admit that he could not diagnose gonorrhea without seeing the gonococci. He thinks gonorrhea in the male has very distinctive features. As to gonorrhea in the female he was free to confess that it is only rarely that he meets with a case where he feels satisfied that he has true gonorrhea—a case that presents those symptoms of virulence that to his mind gonorrhea always ought to have. Of course in latent gonorrhea or gleet or leucorrhea from an endometritis or from the vagina, which practically is a gleet in women, it is impossible to tell whether there is true gonorrhea or whether the discharge is simply due to general conditions. In a large number of cases these chronic discharges from woman are due to specific infection. By questioning those patients he can generally trace it back to a pretty distinct attack with well defined symptoms, everything indicating an acute infective condition, something which did not originate of itself. He believes he can make a diagnosis of gonorrhea without demonstrating the gonococcus, not infallibly, but he thinks the experience

of the past should not be thrown over for the simple reason that we have discovered a coccus of gonorrhea. In regard to the case presented by Dr. Ameiss, if a case was presented to him on the witness stand with a suspicious history such as this case presented, he would most certainly not hesitate to say that the woman had gonorrhea. Only a short while ago Dr. Bremer had presented a report of two cases at the St. Louis Medical Society in both of which he took the trouble to demonstrate the gonococcus before resorting to any treatment. His treatment consisted of the injection of bichloride of mercury; he gave one or two injections, and it was only three or four days when he could not find any more gonococci, and his patients were cured; and they had no recurrence of the disease. This was a very brilliant result, but not more brilliant than that attained by Dr. Ameiss in this case. In his second case the doctor states that probably the only way in which relief can be obtained is by the removal of the ovaries and tubes. Dr. Hulbert don't think that statement justified unless he has exhausted every other means at his command for the relief of the patient. He thinks we are altogether too rapidly falling into the habit of coming to this conclusion that we have nothing to do except to remove the ovaries and tubes where they are diseased. These chronic difficulties of the ovaries and tubes, of the perineum and uterus, are not now the bugbear to him that they used to be. A case that unquestionably was one of pyosalpinx had been treated for some time at the hospital at the time when he first commenced the use of electricity. He was considering very seriously the advisability of operating and removing the tube; but concluded not to do so until he had exhausted every other means to relieve the woman. He aspirated the tube, getting about 20 ccs. of laudable pus with the collapse of the tube. He then discovered the ovary lying back of it; it did not seem to present any difficulty. Then through the trocar he used a galvanic current probably of the strength of 60 or 75 m.a., though he did not at that time have any instrument to measure the current. He aimed to influence the lining membrane of the tube and destroy the tendency to suppuration—to destroy the tube, obliterate it if possible. He made three or four applications in this way by passing the needle through the walls of the vagina into the tube, and at one time had the mischance of having a very profuse hemorrhage from opening up one of the venous sinuses of the pelvic floor, and had to use the tampon. While it was unpleasant, there

was no possible danger to the patient aside from that of septicemia. He ceased the electro-puncture method, as there seemed to be no tendency for the tube to fill, and the tenderness had largely disappeared. He then resorted to applications through the endometrium, and continued the case under treatment at different times for a year. The electricity was not used much over six or eight months. At the end of that time she felt perfectly well and wanted to go out. On examination he found a small lump not larger than the first joint of his thumb; the ovary lay back of this; there was no tenderness whatever; the mobility of the uterus was good. The tracks where the puncture had been made into the tube seemed to have disappeared. He felt that he had accomplished what he wanted to do. That woman had been saved for the time being at least. She certainly was in a very serious condition and was liable to suffer and undergo all the trouble consequent upon a pyosalpinx. Two others he had treated without removing the ovary or tubes. He does not feel that we are justified in removing these organs until we have exhausted all other means at our command. One of the grand features in the relief of these is to effect a good nutritive condition.

*Dr. Frank Glasgow* has had under observation for the last six months a patient in whom, when she first came, both tubes were distended, probably to a size very much larger than a man's thumb and convoluted, filling up most of the space on either side and back of the uterus. In that case there was no operation performed. There was no distinct history of specific trouble, but perforation of the septum nasi and chronic pharyngitis and other things led him to believe that she had at one time had specific disease, and on that account she was given a mixed treatment—bichloride of mercury and iodide of potassium, and those tubes are certainly very much smaller than they were. There certainly was hydro-salpinx; a catarrhal condition and dilatation of the tubes, which has certainly diminished, and the patient's general health is better. He does not expect a cure in his case from medication, but certainly there has been an improvement. As to cases of ovaritis, he agrees with Dr. Hulbert that the profession is going rather too rapidly. Doctors apparently seize every opportunity to operate, and forget to give the patient a chance. A great deal more can be done in the future probably with electricity than has been done, though the range of electricity is not yet well defined and as certain as it ought to be.



*Dr. Ameiss* said when he stated that the dry treatment was used in cases of salpingitis and ovaritis, he did not wish to be understood that it was applied for the relief of that complaint, but to subdue the accompanying vaginal discharge and inflammation. The gonococci he believes are of the greatest diagnostic value, but in many cases of chronic gonorrhea in women it is impossible to demonstrate them. Where the specific virus of this disease has entered the fallopian tube, and we have a pyosalpinx, the pus swarming with gonococci; where during the inflammatory process the uterine extremity of the tube becomes agglutinated and the virus is thus confined in the tube; in the secretion of such a case no gonococci can be demonstrated, provided the uterine cavity and vagina have been properly treated. And in such a case he had suggested the removal of ovaries and tubes, as we can not by any other method get rid of these multiplying organisms.

*Dr. Dixon* said he had seen a number of cases of urethritis both gonorrheal and simple, and recollected especially two cases of simple urethritis, with no history of any previous discharge whatever. Both these attacks were brought on by the passage of a sound, and two days after they were taken with a severe purulent discharge from the urethra, there was no gonococcus to be found; the submucous membrane was inflamed, with all the complications of an ordinary gonorrhea. In three weeks the inguinal glands became enlarged and suppurated, and it took eight or ten weeks before a cure was effected. During that time the patient was examined half a dozen times or more for gonococci, and none were found. This would seem to show that the diagnosis between the two diseases is not as easy as a person might imagine.

*Dr. Leete* called attention to the fact that it is claimed that there are two classes of gonorrhea, impura and pura. He had heard repeatedly from the most eminent teacher in this country that a man virtuous and faithful to his marriage obligation, might contract what appeared to be almost a purulent gonorrhea impura, which was due solely to an irritation set up by a menstrual discharge or the acrid discharge of leucorrhea. He had himself seen such cases.

*Dr. Frank Glasgow.*—It has been said that a man may catch gonorrhea from a woman who has no gonorrhea. Such cases as that may still further complicate the matter. A woman who has no gonorrhea may have intercourse with a man and he contract gonor-

rhea, so also a woman who has gonorrhea may have intercourse with a man, and still he may not contract the disease. He himself had a case of vulvar vaginitis, which to all intents and purposes can not be differentiated from a virulent case of gonorrhea. The patient was a young girl whom he had no reason to believe had had connection. There was a violent inflammation of the vulva and the parts about the vulva extending up the vagina a considerable distance. The parts were so sensitive that he could not make an examination. He questioned her very closely, but she denied having had connection as also intentional irritation by rubbing on iodine, iodide of potash or croton oil. She got well very rapidly, in three or four days, by the dry treatment.

*Dr. Hulbert* did not think that a urethritis following the use of a catheter bore a fair comparison with a gonorrhea. Nor yet a case in which the patient has been using an irritating application capable of producing a catarrhal inflammation, as in the case related by *Dr. Glasgow*. It is simple enough to account for the irritation in *Dr. Glasgow's* case and in *Dr. Dixon's* case; but given those cases in which we can simply determine that there has been sexual commerce, that there has been exposure to all the causes which are necessary to produce gonorrhea and then given this presentation of symptoms that denotes infective virulence; those are the conditions under which it is necessary for us to distinguish between simple inflammations and specific, and those are the conditions under which he believes, in the majority of cases, gentlemen who have had experience in observing gonorrhea can, without demonstrating the gonococcus, say that they are gonorrhea, and would be justified in going on the witness stand and making that statement. In answer to a question from *Dr. Glasgow* he said he did not speak of mild cases, but of virulent cases. He recognized that there are such cases as *Dr. Leete* called attention to, but those would be exceptions; not the large mass of cases. We don't find the virulent symptoms so frequently in women as we do in men, and he does not feel so confident in stating that a case is gonorrhea in women as in men.

*Dr. Homan*, asked what it is that clears away the doubt, which enables him to distinguish between a simple non-traumatic vaginitis and virulent vaginitis. That is what started the discussion. Was the intensity of the inflammation the diagnostic sign?

*Dr. Hulbert* said that in the majority of cases it is a good indication.

*Dr. Dixon*, supposed a patient like the one he had referred to and another one in which the sound had been previously used with chronic gonorrhea and had not been thoroughly cleansed, but some of the gonococci remaining on the sound it was passed into the urethra of the second case and the gonococci had set up a characteristic inflammation. He asked how *Dr. Hulbert* would distinguish the two cases apart?

*Dr. Hulbert* said, there would be no difficulty if he knew all those facts.

*Dr. Dixon* said, not if he knew the gonococci were there.

*Dr. Hulbert* said, he didn't deny the existence of the gonococcus, but he hated to see anybody so weak-kneed as to say that he would not conclude that a patient had gonorrhea unless he saw the gonococcus.

*Dr. Fry* thought it not an unfrequent experience in treating a urethra in which there is a subacute inflammation due to a stricture, to produce a virulent inflammation by introducing a sound. He remembered cases distinctly where every time there was a sound used, an inflammation of the severest kind would follow with a great deal of pain and swelling. He had met with urethras that one could not touch with a sound without bringing on that condition.

*Dr. Todd* suggested the propriety of using the bichloride of mercury in all these cases without regard to the presence or absence in every case of gonococci. As that agent is used so extensively in operative wounds made by the surgeon where there is no gonococcus, simply as an antiseptic, it would be safe to use it in all cases of gonorrhea whether gonococci are detected or not, and that it would be like a double barrelled gun well loaded with shot, certain to kill something, if not the patient. Certainly if each surgeon had to depend upon the discovery of the microorganism under the microscope the treatment would be made considerably more difficult.

*Dr. Todd* asked if there would be any objection to the use in a case of violent gonorrhea, whether there was a specific germ present or not, of a solution of bichloride.

*Dr. Homan* would hardly think it necessary to use a bichloride solution of any strength provided the specificity of the disease were not established.

*Dr. Todd* asked if it would be harmful in non-specific gonorrhea.

*Dr. Homan* said that where there is a high degree of inflammation he was not sure but that it would act as an irritant, but when the



severity of the inflammation had passed off he would think it safe to use. The difficulty is to make the disinfectant solution reach all the deep follicles of the mucous membrane in which gonococci may be hidden.

*Dr. Hulbert*, in answer to a question from *Dr. Grindon* as to the greatest strength of bichloride he had used or known to be used in the treatment of gonorrhea, said that he had never gone over one in two thousand.

*Dr. Bremer* said, that in the male urethra he would not as a rule use anything stronger than one in ten-thousand; but in cases where it seemed to be indicated that an abortive treatment could be resorted to, he had used a solution as strong as one in 500 in the stage where no inflammation had as yet made its appearance. He had cut the inflammation short in two cases in the very first stage, that is to say where the discharge was as yet serous and not purulent. The gonococcus was present. Since then he had not been so fortunate; and he had not liked the effect of it, because it set up a terrible inflammation, and the inflammation cut short the gonorrhea.

One part in five hundred set up a terrible inflammation and even one in one-thousand set up an inflammation. He said he was not in the habit of treating a great many cases of gonorrhea, but some of his neurasthenic patients, especially those on the verge of epilepsy, are very subject to it. They can not make up their minds that they are going to be impotent, and they try it again and again and in various places, and of course the greater the variety of places that are visited, the greater the danger of infection, and it is his experience that this unfortunate class is very liable to be affected with clap. It was such cases that he had treated. No treatment had given him so much satisfaction as hot water; not the injection spasmodically of hot water, but the judicious, continued use of this very important remedial agent. If a man will urinate about every two hours, and inject hot water after each micturition and keep quiet, he is pretty sure to subdue even the acutest inflammatory stage in 24 hours, and very frequently after the first two or three injections the result is apparent; after the first two or three injections the discharge becomes less, and the disagreeable sensations in the urethra become milder. He would not venture an assertion that it cuts short the period. In a number of cases it had disappeared in two or three weeks of this treatment. At the same time it is a perfectly harmless treatment. Of course the principal condition is ab-

solute rest; if a person moves about and uses hot water, it amounts to nothing ; if he does not lie down and keep quiet to such an extent that he avoids all strain upon the perineum, there is no use in treating him at all. Such patients may just as well go on without treatment.

*Dr. Homan*, asked if this result is because the temperature of the hot water is destructive of the organisms ?

*Dr. Bremer* said that was the supposition. A physician of Lyons, made an experiment on the virus of chancroid ; they found that a temperature of  $101\frac{1}{2}^{\circ}$  or  $102^{\circ}$  will destroy the specificity of the chancroid virus. A degree more or less influences the growth and development of pathological bacilli greatly. The gonococcus especially seems to be a very delicate organism. The cultivation of it outside the body has not met with any great results so far. This is a great drawback to the firm establishment of the specificity of the gonococcus. The beneficial action of the hot water upon the urethra consists in the first place in its soothing and cleansing influence, at the same time it kills the gonococci ; but probably its chief office consists in washing out the gonococci.

*Dr. Leete* suggested that if the water is tolerably hot, it is practically an astringent, and would reduce the calibre of the vessels?

*Dr. Bremer* said, that is what it would do primarily, but secondarily it would produce a dilatation.

*Dr. Leete* asked if the contractive effect does not last several hours.

*Dr. Bremer* thought not, judging by the action of the hot water where the parts become red.

*Dr. Epstein* asked how the injections of hot water were made and how often.

*Dr. Bremer* said, he made the injections every two hours with a common syringe.

*Dr. Grindon* asked if *Dr. Bremer* would use bichloride solutions in the second stage, after the purulent discharge had occurred.

*Dr. Bremer* said he would not use a bichloride solution in the acute stage, and in the second stage, after the acute symptoms had passed away, while he had used it in some instances, it had been in a solution of one grain in ten-thousand. But he believed more in hot water solutions and rest than in anything else. The hardest cases of clap to treat are those in drummers, because they have to be on the move ; they are on the railroad and they will not rest; it is not unusual for them to have clap continuing for months, and he had

known a case in which a man had gonorrhea for three years successively.

*Dr. Dixon* asked the doctor if this method of treating clap by hot water is not the same as was recommended by *Dr. Keyes* some eight or ten years ago in which he used hot water irrigation to the urethra in cases of acute clap?

*Dr. Bremer* said he didn't know who is the originator of the treatment; he don't claim it as original.

*Dr. Carson* said the treatment of gonorrhea with hot water when you can get the patient to adopt the treatment carefully, is most excellent, but his experience in these cases has been that the patients rebel; they think they are getting nothing but simple hot water and there is no chance of their recovery, and they become impatient; or if they do think that the hot water is doing them good they think something else stronger ought to do them more good. He had known nothing to give more satisfaction than the application of hot water externally to the penis and testicles for chordee; placing the penis and testicles in a cup of water as hot as the patient can tolerate it, allowing the parts to remain immersed for fifteen minutes or more before going to bed and in the morning after arising. As to getting a patient with gonorrhea to remain quiet, he had found that almost an impossibility. He advises his patients to urinate as often as possible, and one great secret of success in the treatment is in having the patient administer an injection after urinating. The canal is then washed clean, the medication comes in contact with the membrane, and in that way we can derive the greatest benefit and satisfaction from the use of the injections.

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Stated Meeting, June 14, 1887, *Dr. Eversole* in the chair.

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#### CARCINOMA UTERI.

*Dr. N. B. Carson* presented a uterus which he removed last Saturday a week ago. The patient came to the hospital and upon examination the vagina was found filled with a cancerous mass. For the last two years, especially during the past few months, she had been suffering from hemorrhages and discharges, which had reduced her very much. Her condition was cachectic. Upon examining through the rectum the uterus was found enlarged and irregular upon its posterior surface. On bimanual examination it



could be readily felt above the pubes, and the introduction of a probe showed its depth to be four inches. No extension of the disease up into the broad ligaments was detected. The patient had been unable to go about and attend to her duties for several months, and had failed very rapidly in health. The diagnosis was cancer of the uterus extending up into the body. Dr. Carson advised the removal of the organ through the vagina, to which the patient assented; but the physician who had been attending her not being satisfied advised against it; and the time set for the operation having arrived, a consultation was urged to which he would not consent. He had given his opinion; they had allowed the case to go along to the time appointed for the operation, and he had made all his preparations; and if they wanted a consultation they would have to get somebody else to operate. The woman was very much dissatisfied and left for her home. When she reached home her husband insisted upon her coming back, and after some time Dr. C. finally consented to take charge of her again. However, the trip had not benefited her, and her condition was worse than when she left. Several physicians examined her, and all agreed not only as to the propriety but the necessity of the operation, which was made last Saturday week. The uterus was nearly three times the normal size. Immediately after the operation the pulse went up to 140. She reacted very well the next day; she slept most of the first night; the next day Dr. C. noticed a stare which was not very marked, but which increased; and as the afternoon advanced she became slightly delirious, with more or less restlessness, tossing of the hands and throwing herself about in the bed. This increased and the temperature went up to 103.6°, the pulse to 140. Thinking that possibly there might be a beginning peritonitis, although there was very little evident tenderness, and no distention of the abdomen, he ordered ice-bags applied to the abdomen and frequent sponging of the patient. This was at six o'clock in the afternoon, and at 10 o'clock the temperature was reduced to less than 100°. She passed a comparatively comfortable night, although a sleepless one, being more or less restless. The next day the temperature still remained down, but the pulse was rapid, with this continued tossing and acute mania, because she was totally unconscious by this time. This increased until during the night it was only by means of a hypodermic injection of the hydrochlorate of hyoscine that she got two hours rest.

The next morning, Tuesday, he thought she was somewhat better; the pulse was not quite so frequent; the temperature did not increase, but she had four large movements of the bowels; no distention of the abdomen, no pain; but again in the afternoon she had two large movements of the bowels from which she went into a state of collapse, and died in a few hours in spite of all that could be done. Whether this was due to the iodoform, to which Dr. Bremer attributed it, or to the nervous exhaustion dependent upon the irritation caused by the ligatures around the broad ligament he did not know; but he was convinced that there was no septic or inflammatory cause to produce the death of the patient.

*Dr. Tuholske* reported several cases. (Vid. p. 394.)

PSEUDARTHROSIS OF HUMERUS—RUPTURE OF LIVER—DERMOID CYST OF OVARY.

*Dr. Carson* considered the first of these cases exceedingly interesting. The method used for bringing the ununited ends of the bones together was certainly very ingenious. Loss of substance he had found to be very often the cause of non-union. He differed with Dr. T. about antiseptics interfering with union. In two or three cases he had resected the ununited ends of bone and held them together with ivory pegs, dressed the wound antiseptically and gained perfect results, the pegs being allowed to remain. In an alcoholic subject who had a fracture near the elbow, he resected the ends of the bone which were rounded and covered with that peculiar cartilaginous matter that the doctor described, and he failed to get union. However, that fracture was very near the joint and the operation was not satisfactory. His experience has been that syphilis does not prevent or interfere in the least with the union of fractured bones, but he fully agreed with Dr. Tuholske in regard to the influence of phthisis.

The case of laparotomy was certainly very interesting as the first on record wherein the abdomen has been opened for a non-penetrating wound of the abdomen which has recovered; and he could not call to mind any case wherein bile had been emptied into the abdominal cavity without a fatal result. Next to the contents of the intestine, bile is the most fatal fluid which enters the abdominal cavity. He uses silk entirely now for sutures as he thinks we can bring the surfaces together much better with silk than with any other material that we can use.

*Dr. Dean* said the only case of non-union that he had at the hospital was due to chronic alcoholism. This patient was in the hospital nearly two years; he was prematurely old, and yet a stout, fine-looking man. They tried almost every treatment, and at last some six months perhaps before he left the hospital, *Dr. Mudd* suggested a seton and they came pretty near losing the patient. Afterwards they again rubbed the ends of the bone together. The wound healed up and he molded a sole-leather splint for the thigh and laced it so that the man could remove it from time to time to examine it, and he recovered with apparently a very fair limb. *Dr. Dean* learned very early after commencing the use of antiseptics at the hospital that in a good many cases strict antisepsis did prevent union in open wounds.

*Dr. Carson* said that a man came into the Sisters' Hospital three weeks ago, or a little over, with a compound, comminuted fracture of the leg. The bone had been driven through in places, and there were several fragments. One or two small pieces had been taken out before he came there. He saw him late in the evening, washed out the wounds as thoroughly as possible, put on complete antiseptic dressings and put over this a plaster splint; and the patient had not had any bad symptoms since. The union of the bones had progressed very favorably and just as rapidly as they would have done in times before the introduction of antiseptics, and the union is now as firm as we should expect it after this length of time.

*Dr. Homan* asked what is the relative frequency of false joint in compound and simple fractures, and whether the failure to get union can be ascribed to the antiseptics used.

*Dr. Tuholske* said that, not counting the patella and olecranon, the femur is probably the bone in which there is most frequently a failure of union, and unless there be considerable destruction of bone, it is more frequent in simple non complicated fractures than in open fractures, and probably for the reason that in a simple fracture, where the bone is not comminuted, it is merely taken hold of and put in a splint; there is little extravasation of blood; there is not much displacement, and just as little local reaction as in an open fracture treated under strict antisepsis, and under those circumstances we are much more apt to have false joint than in compound fractures. The following case pretty well illustrated the point. A man had fallen off a wagon and had broken both bones of the leg; the bone protruded through the skin, which was



badly bruised and looked so badly that the doctor thought it would become gangrenous. A week or ten days afterwards he asked Dr. T. to see the patient with him, and he found the skin looking very badly, the bone still exposed, but in a very good position. The patient was treated under very rigid antiseptic precautions, just as thoroughly as one could apply them; there was very little reaction indeed, but the skin gradually became normal, granulations sprang up, and in the course of nine weeks it was all healed over, but the callus that had formed was very small, and the doctor found that the ends of the tibia could be moved very readily. He asked Dr. T. to see the patient with a view to resecting the ends and wiring them together. It was only nine weeks after the injury; there was still edema about the extremity, and Dr. T. suggested to take hold of the ends of the bone and give them a good rubbing, then put on a good firm splint, feed the fellow well and let him have lots of fresh air. Then, if an operation should be necessary, he would be in a good condition to bear it. They followed this plan and a union resulted. The remedy that Dr. Carson recommends, the use of ivory pegs, after the method of Dieffenbach, is, of course, a good one when all the milder remedies have not been followed by success, as in cases where there has been a great loss of substance, and where there has been a great deal of periosteum destroyed; and many times the ivory pegs stay there without changing, although in some cases they set up a certain amount of irritation and come out of the bone looking rough and as if worm-eaten. He had seen cases where patients had been treated under the most rigid precautions and believed this method preferable to making a resection and wiring the ends of the bone together; but there are cases in which all the milder means will fail and in which the wiring of the ends of the bone together is necessary in order to secure a union.

*Dr. Homan* asked if pathogenic organisms play any role in physiological repair of broken bones.

*Dr. Carson* could not agree with Dr. Tuholske as to compound fractures uniting more readily than simple fractures. He thinks when simple fractures fail to unite there is generally some cause to be found for their not doing so, and in the majority of cases—excluding tubercular cases, of course, also alcoholic cases, and taking only cases of patients in good health—if we find the bones

do not unite, we conclude that there is faulty treatment. Where they are treated properly, there may be a segment of muscle or something of that sort interposed between the ends of the bone to prevent a union. Where everything is favorable, the condition of the patient being good, he finds no cases in which union is not rapid and does not go on uninterruptedly. He had not found that the use of antiseptics delays or prevents the union of fractured bones.

*Dr. Dean* in answer to *Dr. Homan's* question, said that we are not prepared to say just how pathogenic organisms do act. He believes there are very few inflammations that are not produced by these organisms in one form or another in punctured wounds and among the so-called chemical inflammations; and among the so-called mechanical inflammations, no doubt instead of the inflammation resulting from the mechanical injury it comes from products carried in by the instrument which produced the mechanical injury. But everybody would probably agree that typical, physiological union of broken bone is aseptic so that by proper antiseptic precaution, such as cleansing the compound fracture, sterilizing the instruments with which we operate, etc., we make it a subcutaneous operation.

*Dr. Leete* asked if it is or not a fact that rupture of the liver is usually followed by fatal results.

*Dr. Tuholske* said it is generally fatal.

*Dr. Leete* asked if he had ever known of a case that recovered except the one just reported.

*Dr. Tuholske* said he had not.

*Dr. Leete* then related a case which was reported at the time when President Garfield was suffering from the gunshot wound which finally terminated fatally. It was brought out in this city after the opinion had been given by a good many physicians that if there was any injury to the liver the patient would certainly die. During the war an officer in the southern army, somewhere in Virginia, was shot down, and abandoned for dead, the case being regarded as hopeless, when some one recognizing him, an examination as to the measure of his injuries was made, with the result of finding that he had been shot from side to side, and there was further found, upon careful examination, a round piece of the liver corresponding to the diameter of the average bullet that was used in the army, about as large as the thumb, and this fragment of liver

was about equal in length to the long diameter of the liver; and yet the man got well.

*Dr. Carson* said that there are some cases on record of both laceration and rupture of the liver, as well as cases of gunshot wounds of the liver, well authenticated, that have recovered.

*Dr. Dean* corroborated *Dr. Carson's* statement, and based upon these cases, he said, some had given directions as to how the surgeon should proceed to treat such cases, among other things describing the stitching of the liver.

*Dr. Dixon* had seen some cases in the *Annals of Surgery*.

*Dr. Homan* asked if the matter which was removed in *Dr. Tuholske's* case was sufficiently examined to establish the fact that there was bile in it?

*Dr. Dixon* said he examined the fluid and there was bile in it.

*Dr. Dalton* said there was a case at the city hospital now which had come in within five or six weeks, of gun-shot wound of the liver, with a 38 calibre bullet. The bullet entered slightly to the right of the ensiform cartilage, passed directly downward to the right and into the liver, and into the right thorax, cutting through into the cavity and passed downward and backward into the post-peritoneal space. About a week ago *Dr. Mudd* made an incision into the lumbar region getting out a pint of fluid; the bullet was found in the post-peritoneal space. The man was very greatly jaundiced and very tender over the liver, and they concluded he was shot through the liver. He had done very well since the operation until within the last day or two. He was getting jaundiced, the pulse was rapid; he was very tender over the liver and they were inclined to the opinion that an abscess was forming. (Vid. p. 400)

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Stated Meeting, September th, 1887, *Dr. Post* in the chair.

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*Dr. Curtman* read a paper on "The Presence of Lead in St. Louis Hydrant Water. (Vid p. 385).

*Dr. Curtman*, in answer to a question by *Dr. Dean*, said that when water containing no impurity at all is mixed with cochineal tincture, a yellowish red, rather an orange tint is generated; when lime salts, are present, there is a bright red purple; but when lead or copper is present there is a grayish violet which is quite characteristic, and by which we can detect very small traces of lead.



He had not heard of any cases of lead poisoning due to the lead in the hydrant water. If lead had been present in the water during the winter months, it would have been absolutely impossible to overlook it for any length of time. In the college laboratories they use sulphuretted hydrogen quite frequently, the generator being connected with a wash-bottle filled with water from the hydrant; and if there had been lead present in the water at any time it could not have been overlooked. He had never before had occasion to make sulphuretted hydrogen tests in summer time, when there is high water, which always carries down quite an amount of sediment, or he might have discovered it before. There has recently been quite an amount of sharp sand carried down, which may have scoured off some of the lead.

As a general thing large quantities of lead taken in a metallic state would not be absorbed by the stomach; one could not take an acutely poisonous dose in that state. There is hardly any reason to apprehend poisoning from this lead in the water, although small doses introduced into the system for a considerable length of time might affect it; the lead has not been present in the water a sufficient length of time to give us any dangerous symptoms. One could hardly take a sufficient quantity of lead into the system in a metallic state to produce acute poisoning.

*Dr. Homan* suggested the possibility that the peculiar sharp sand observed by *Dr. Curtman* may have been brought down from the mountains, perhaps in snow water; and asked whether if it were snow water, it would affect the lining of the pipes that is ordinarily present; whether softer water would tend to remove that?

*Dr. Curtman* had not made any examination with a view to ascertain that; but the water contained so much of lime salts that the commingling of snow water would not probably affect the pipe.

*Dr. Dean* said that some years ago he made an examination of water from the river above and below the outlets of the sewers as regards the hardness of the water and the amount of certain organic and other substances, and found in the filtered water very little lead. The water from several wells, especially those from which water was taken to manufacture artificial mineral water, was examined, and the water from the Compton Hill reservoir was by far the purest, and the ice taken from the reservoir was more pure than that from any other source, the so-called lakes and so on. At the City Hospital the water from the steam coils is simply carried

back into the cistern and pumped into the boilers so as to save so much fuel. The amount of lead in solution in the ordinary water was scarcely perceptible, and that from the coils was entirely free.

*Dr. Curtman* asked if *Dr. Dean* said that there was always a trace of lead found in the water that passed through the leaden pipes?

*Dr. Dean* thought there was.

*Dr. Curtman* asked if there was a difference in the amount at times when there was more or less sediment?

*Dr. Dean* said that he never tested that. He thinks that the water supplied from the reservoir is much better than that supplied to other parts of the city.

*Dr. Post* asked if *Dr. Curtman* had made any tests of water from Compton Hill reservoir, or whether all the tests were made with water from the northern part of the city.

*Dr. Curtman* said he had done so, and that there was a small quantity of lead in it. There was a good deal of difference between that water and that from the northern parts of the city.

*Dr. Homan* asked if there are any rivers or springs or lakes in this section of country which lead to lead poisoning.

*Dr. Curtman* answered that lead poisoning is not usually caused by running water but by storing rain water in leaden vessels.

*Dr. Dean* said that when he first went to the hospital he found a little passage which was sealed over, about seven feet from the floor. Finally they knocked off some boards and found a lead lined tank five or six feet deep: no one knew anything about it, but the whole water supply of the hospital had evidently come from this tank at some time or another.

A good many people claim that the Missouri river water is better than that from the Mississippi, although the latter is clearer, he asked if *Dr. Curtman* knew where the people of East St. Louis get their water.

*Dr. Curtman* said he did not know as to that: the water of the Illinois river is quite slimy, however and disagreeable, probably because there is so much organic sediment in suspension.

*Dr. Dean* said it is a prevalent idea that water will purify itself by running, but it is all nonsense. He stated in the report made some years ago that water will not purify itself in running any number of miles, so far as the running is concerned; it is simply diluted, but that is very different from being purified.

*Dr. Curtman* said it is only non-living materials that are oxidized by the running of the water. Living plants and animalcules and living disease germs are not gotten rid of by running water; the influx of more water will dilute them, but we do not get rid of them by oxidization.

*Dr. Homan* said attention would probably be directed, before long, to the subject of the contamination of the water here from sewage coming down the Illinois river. Chicago is making an effort to have the channel of her canal deepened and by directing a current through from the lake to get rid of a large portion of her sewage by having it flow down the Illinois river; and the question is whether this will not have the effect of contaminating the water here. His own idea is that so long as the volumes of the respective rivers remain as they are now there will be no danger.

*Dr. Post* said that he had been told that steamboat men are satisfied that the Mississippi water above the mouth of the Missouri, produces derangement of the bowels much more easily than that from the Missouri.

*Dr. Curtman* said that there exists a prejudice against the water of the Ohio and Mississippi river by steamboat officers. Steamboat men caution their passengers against using water from the Ohio or Mississippi above the mouth of the Missouri; they seem to be prejudiced against the clearer water.

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#### AMERICAN GYNECOLOGICAL SOCIETY.

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The twelfth annual meeting of this society was held in New York City Sept. 13, 14 and 15, 1887. Special interest was added to its discussions by the presence of a number of distinguished foreigners who had been in attendance upon the meeting of the International Congress at Washington.

The address of welcome was delivered by Dr. Fordyce Barker, after which the first formal paper was presented by Dr. T. A. Emmet, his subject being "A Study of the Causes and Treatment of Uterine Displacements." The suffering in displacements is not due to the displacement itself, but to extraneous causes, especially periuterine inflammation. In a majority of cases he holds that displacements are dependent upon an inflammatory process which



shortens the ligaments or peritoneal folds, and while the use of a pessary may relieve the symptoms for a time, its prolonged use will be almost certain to cause inflammatory action again by pressure on the affected ligaments. He advises the general practitioner not to attempt to correct the displacement but to content himself with hot water injections and the application of iodine and glycerine pads. He says such cases are better treated in hospitals.

He discussed at some length the peculiarities of the circulation of the pelvis. In concluding he said he did not wish to be misunderstood. While the range of usefulness of pessaries is limited, in suitable cases nothing else can take their place. A displacement should be regarded as a symptom, the cause of which must always be sought for. Gynecologists are too apt to neglect to seek for evidences of pelvic inflammation. The finger should be preferred to the sound for replacing the uterus.

*Dr. Graily Hewitt*, being invited to take part in the discussion, expressed approval of the general sentiment of *Dr. Emmet's* paper but was inclined to the opinion that pelvic cellulitis must be a much more common disease among the women of America than among his own countrywomen. While he recognized the effect of inflammation as an important factor in the suffering attendant upon displacement of the uterus in many cases, he was not disposed to give it so much importance as did *Dr. Emmet*, he himself believing that flexions interfering with the circulation and hence causing pressure on the nerves were often the essential cause of the suffering.

*Prof. Simpson*, of Edinburgh, *Dr. Bantock*, of London, also spoke on this subject. The latter said there was no advantage in trying to find out the exact cause of a uterine displacement: the patient wished to be relieved of her symptom; and in most cases this could be done by the proper adjustment of a pessary.

*Dr. Emmet*, in concluding the discussion, said that he had not intended to ignore other causes of displacement, but to emphasize one which had been too little considered. He thought pessaries were too much used in this country by men who did not understand them, and who, therefore, did more harm than good by their treatment. It was of the utmost importance to be able to distinguish those cases which are unfit for the use of pessaries. He is of the opinion that there is more of pelvic inflammation here than

abroad; and that this is due to the fact that young women in America go into society earlier.

*Dr. S. C. Busey*, of Washington, then read a paper on "Cystokolpocele Complicating Labor and Pregnancy." He had collected six cases reported in detail of cystokolpocele complicating pregnancy, one occurring in his own practice, and thirty-five complicating labor.

*Dr. Wm. Goodell*, reported a case of each form of trouble.

In the afternoon *Dr. Wm. M. Polk*, of New York, read a paper entitled "Are the Tubes and Ovaries to be Sacrificed in all Cases of Salpingitis?" He thinks that the operation should be confined within narrow limits and that many cases of salpingitis do not demand such heroic measures.

*Dr. Martin*, of Berlin, said that in general the inflammations of the tube could be considered innocent, occlusion or adhesion to surrounding parts occurring early, but in only a small number of cases does the inflammation become general. Out of a large number of cases he had only found it necessary to operate in a small minority. Only after a long course of anti-inflammatory treatment should operation be undertaken. In answer to a question from *Dr. Barker* he said that in cases of acute inflammation he used ice-bags on the abdomen, with opium to relieve the pain. In chronic cases he applies iodine and peat compresses. He takes care of the general health and uses massage.

*Dr. Goodell's* experience had been rather in favor of operation though he had had some gratifying results from the rest treatment.

*Dr. Bantock*, held that cases of catarrhal salpingitis don't require treatment, but that operation alone will relieve pyosalpinx. In acute inflammation he insists on absolute quiet, gives hot douches, and opium.

*Dr. Sutton*, of Pittsburg, thinks the whole subject of tubal pathology is still *sub judice* and that no positive rules can yet be formulated for the treatment of salpingitis.

*Dr. Paul F. Mundé*, of New York, read a paper entitled "Drainage after Laparotomy." He noted the remarkable difference of opinion between many of the most eminent European operators with regard to this matter. He substantially agreed with *Olshausen* in the condemnation of drainage after laparotomy; but thought the latter carried his opposition too far, and would not

shut up a portion of an adherent cyst within the abdominal cavity without providing for the escape of the fluid which must inevitably be secreted. He would stitch the adherent sac into the abdominal wound, packing its interior with iodoform gauze, and allowing it to close up by granulation.

WEDNESDAY, SECOND DAY.

At the opening of the morning session the president referred to the death of Dr. John Scott, of San Francisco, Cal., one of the fellows of the society, and appointed Dr. T. A. Emmet to prepare a memoir for publication in the next volume of "Transactions." The first paper of this session was by Dr. C. D. Palmer, of Cincinnati, and was entitled "The Therapeutic Value of some Medicines in the Treatment of Hemorrhagic Conditions of the Uterus." The remedies discussed were ergot, digitalis, bromide of potassium arsenic, gallic acid, cannabis indica, hammamelis, gossypium, viburnum, hydrastis, and the cholagogue cathartics.

*Dr. Fordyce Barker* emphasized the importance of medicinal treatment.

*Dr. Lloyd Roberts*, of Manchester, Eng., considers ergot the most generally reliable if choice must be made of one remedy.

*Dr. Balls Headley*, of Melbourne, Australia, thought that in a large proportion of cases medicinal treatment must be supplemented by local applications.

*Dr. H. P. C. Wilson*, of Baltimore, has little confidence in hemostatic remedies for uterine hemorrhage.

*Dr. Chadwick*, of Boston, reported an interesting case in which success had followed the administration of chian turpentine.

*Dr. Doléris*, of Paris then delivered in French an address on "Alexander's Operation," discussing first the normal condition of the pelvis and its contents, and then the displacements for which this operation offers relief. He was disposed to strongly favor the operation.

*Dr. Reid*, of Glasgow, called attention to the importance of remembering that by this operation only the position, not the condition of the organ is affected. After-treatment and measures directed to a restoration of the uterus to a normal condition are of the utmost importance.

*Dr. Martin*, of Berlin, *Dr. Lusk*, of New York, *Dr. Kelly*, of Philadelphia, and others took part in the discussion.

*Dr. Alex. J. C. Skene*, then delivered the president's annual ad-



dress. He referred to the comparative youth of the society and the valuable work which it had accomplished. He called attention to the importance of gynecology as a factor in the whole field of surgery and medical literature. He thinks that undue prominence is still given to operative measures in the treatment of diseases of the uterus and ovaries and their adnexa, but thinks that this will be corrected in due time.

*Dr. Bantock*, of London, then read a paper on the "Treatment of the Pedicle in Supravaginal Hysterectomy." In his experience the intraperitoneal method had been as uniformly disastrous as the extraperitoneal method had been successful. A table of cases showed 45 recoveries out of 57 cases in which the pedicle was treated extraperitoneally, and 4 deaths out of five cases in which the intraperitoneal method had been practiced.

In the afternoon session *Dr. James B. Hunter*, of New York, reported "A case of Acute Dilatation of the Stomach following Laparotomy." Operation had been made for removal of both tubes and ovaries on account of severe dysmenorrhea due to ovarian disease of several years standing. The patient died on the eighth day, having vomited at intervals in a peculiar manner, the act being more a regurgitation of large quantities of liquid without much straining. The abdomen became distended and tender, the temperature rising to 101° F., and it was supposed that she had died of a low peritonitis. The autopsy revealed extreme dilatation of the stomach, which filled the abdominal cavity to within three inches of the symphysis and crowded the intestines and omentum into the pelvis. No evidences of peritonitis were present.

*Dr. A. Reeves Jackson*, of Chicago, then read a paper on "The Intra-Uterine Stem in the Treatment of Flexures." He never uses the stem in the treatment of flexures where the deformity is not the cause of dysmenorrhea, nor until the tolerance of the uterus has been ascertained by previous systematic introduction of the bougie, nor when there is the least evidence of peri-uterine inflammation.

*Dr. Apostoli*, of Paris, then read a paper on the subject of the "Treatment of Uterine Fibroids by Electrolysis." He has been using this mode of treatment since 1882, directing the treatment chiefly to the interior of the uterus, because:

1. The endometrium is nearly all diseased in cases of fibroma, and the hemorrhage will be arrested by cauterizing it.

2. Modification of the nutrition of the mucosa affects also that of the adjacent neoplasm.

3. The introduction of one pole into the uterus enables the operator to place the organ directly in the current.

*Dr. Chadwick*, of Boston, then read a paper on "The Operation for Ventral Hernia after Laparotomy."

THURSDAY MORNING, SEPT. 15.

First there was the deferred discussion of *Dr. Bantock's* paper read on the day preceding; and then *Dr. Battey*, of Rome, Ga., read a paper on "Battey's Operation—Its Matured Results." He has performed the operation 54 times with 33 cures, 8 much improved, 5 little improved, 8 not at all improved. There was complete menopause in 50 cases; continued pseudo-menses in four. The prime object of the operation in his opinion is to bring on the menopause.

*Dr. A. W. Johnstone*, of Danville, Tenn., read a paper on "The Infantile Uterus." He holds that the uterus is not only an independent organ but that it consists of two parts with entirely distinct functions, and that either or both parts may be arrested in the process of development. When on account of such arrested development the life of the woman becomes a burden, the menopause should be hastened. He expressed a hope that the uterus may be emancipated from the thralldom to the ovaries in which it has long been held.

*Dr. Parvin*, of Philadelphia, read a paper on "The Importance of Antiseptics in Private Obstetric Practice," strongly urging their use, and exhibiting a very compact pocket case which would facilitate the practical application of the principles advocated.

*Dr. Ely Van de Warker*, of Syracuse, then read a paper on "Extra-Uterine Pregnancy and its Treatment by Electricity."

In the afternoon session *Dr. Frank P. Foster*, of New York, read a paper on "Vaginal Injections in Sims' Position," holding that thereby better results are obtained than by giving the hot douche in the dorsal position.

*Dr. Charles Jewett*, of Brooklyn, read "A Note on the Treatment of Puerperal Eclampsia," recommending veratrum viride subcutaneously. He asserts that no convulsion can occur while the system is under the influence of this agent and the pulse below sixty per minute. He does not recommend dependence upon veratrum alone.

The President then called attention to the fact that the time for adjournment was at hand.

*Dr. Jno. P. Reynolds*, of Boston, offered a resolution complimentary to the president and to the foreign guests who had added much to the interest of the meeting. Responses were made by Drs. Graily Hewitt, of London, A. R. Simpson, of Edinburgh, Lloyd Roberts, of Manchester, England, Balls-Headley, of Melbourne, Australia; and A. Cordes, of Geneva, Switzerland.

The officers for the coming year are as follows:

President, Dr. R. Battey, of Rome, Ga.; Vice-Presidents, Dr. A. Reeves Jackson, of Chicago, Ill., and Dr. Jas. R. Chadwick, of Boston, Mass.; Secretary, Dr. Joseph T. Johnson, of Washington, D. C.; Treasurer, Dr. Matthew D. Mann, of Buffalo, N. Y.; Members of the council, Drs. Jas. B. Hunter, of New York, R. S. Sutton, of Pittsburg, Penn., C. D. Palmer, of Cincinnati, O.; and Frank P. Foster, of New York. The next meeting is to be held in Boston, commencing with the third Tuesday in September, 1888.

## NINTH INTERNATIONAL MEDICAL CONGRESS.

### MEETINGS OF SECTIONS.

[Abstracts from Reports prepared for N. Y. Medical Record, and furnished by courtesy of Wm. Wood & Co.]

### SECTION IN OBSTETRICS.

*DeLaskie Miller, M. D., Ph. D.*, Chicago, Ill., President.

*Secretaries.*—W. W. Jaggard, M. D., Chicago, Ill.; Joseph Kucher, M. D., New York, N. Y.; J. Williams, M. D., London, England.

MONDAY, SEPTEMBER 5,—FIRST DAY—AFTERNOON SESSION.

*Dr. Miller*, in a graceful inaugural address, extended cordial greeting and fraternal welcome to the distinguished guests present.

In speaking of certain obstetric difficulties, he hoped that craniotomy in contracted pelvis would be adopted only in exceptional cases. It was too frequently assumed to be without danger to the mother. The inference from his researches was that the maternal



mortality exceeds that reported. Under the new régime the interests of the child became more important. The requisite skill for other operative interference could now be found nearly everywhere.

In ectopic gestation, he considered early diagnosis of the greatest importance, and then electricity to arrest vitality.

While endeavoring to render the puerperal state aseptic, we should not fail to remember the danger from the ordinary agents used, especially where the kidneys were impaired, and he would not employ them in ordinary cases. Cleanliness was a most valuable means of asepsis.

The address concluded with the mention of those distinguished in the specialty who had died within the past year—Alfred H. Mc Clintock, Alfred Meadows, and Carl Schroeder.

A paper sent by *J. Braxton Hicks, M. D., F. R. S.*, of London, England,

ON THE CONTRACTIONS OF THE UTERUS THROUGHOUT PREGNANCY,  
AND THEIR VALUE IN THE DIAGNOSIS OF PREGNANCY, BOTH  
NORMAL AND COMPLICATED,

was then read.

Fifteen years ago the author had first directed attention to the fact that the uterus contracted throughout pregnancy at intervals of from five to twenty minutes; since then he had added much to his previous knowledge.

Before the fourth month bimanual palpation was necessary, later external examination was sufficient for its detection. The pregnant uterus was very soft, and offered no appreciable resistance to palpation except during contraction. In a young girl suspected of pregnancy abdominal palpation was often all-sufficient, though internal examination might be necessary. A soft condition of the uterus, with a localized lump, often pointed toward the death of the fetus or to ectopic-gestation. The uterus might contract about fibroids. A knowledge of the contractions often rendered easy a diagnosis otherwise difficult, as in ovarian tumor, ovarian tumor and pregnancy, ectopic gestation, and normal gestation, twin pregnancy, and hydramnios (palpation and the stethoscope as aids). With a dead fetus the walls might be rigidly contracted. We should always look for corroborative signs.

*Professor Alexander Simpson*, of Edinburgh, Scotland, thought the phenomenon of uterine contraction during pregnancy was now a widely recognized fact.

The sign mentioned was especially valuable before the fetal heart-sounds could be distinguished, and in the third month, when it could be employed in addition to Hegar's sign.

*Dr. A. F. A. King*, of Washington, D. C., said there was sometimes difficulty in recognizing the contractions of the uterus, and they might be excited by polypi, by the retention of menstrual fluid, or by fibroids. They were principally of value after the third month. During the first and second months we had no positive means of diagnosis. In single women the diagnosis of pregnancy could not be certainly made by uterine contractions alone. An important point in searching for this sign was to irritate the uterus slightly to make it contract.

*Professor Charpentier*, of Paris, France, appreciated thoroughly the value of Dr. Hick's sign, and related a case of hydramnios where its presence made the diagnosis possible.

*Duncan C. MacCallum, M. D., M. R. C. S., Eng.*, of Montreal, Canada, read a paper on

#### VICARIOUS MENSTRUATION.

After a *résumé* of the literature of the subject and the diverse opinions of modern authorities, the reader cited four cases.

To constitute vicarious menstruation there must be (a) absence of menstrual blood flow, (b) blood from some other organ than the uterus, and (c) no other assignable cause for the hemorrhage than the increased premenstrual blood-tension.

*Drs. Charles T. Parks, and D. T. Nelson*, of Chicago, Ill., each reported a case.

*Dr. Rodney Glisan*, of Portland, Ore., in thirty-nine years had seen three cases.

*Professor T. Lazarewitch, M. D.*, of St. Petersburg, Russia, presented a paper on

#### THE MECHANISM OF LABOR AND THE NORMAL FORCEPS.

After calling attention to the factors concerned in the mechanism of labor, and the necessity of an accurate knowledge of the mechanics of the process, he described a forceps which he had devised, having straight parallel blades, and locking with a simple tenon and screw.

*W. S. Stewart, M. D.*, of Philadelphia, Pa., exhibited an

## IMPROVED FORCEPS WITH PARALLEL BRANCHES.

The advantages claimed are: 1. That either blade may be applied first. 2. The impossibility of its slipping when properly applied. 3. Moderate and even compression, the degree of compression being regulated by the amount of resistance. 4. Great facility for making traction.

*Dr. Opie* thought that most forceps had merit in proportion to the skill and familiarity in their use by the individual operator. It was not so much the instrument as the man. We should not try to do by mechanism what the skilful hand may execute. A properly educated touch and hand were the best means of warding off dangers incident to the use of the forceps. He believed in the use of a moderate pelvic curve.

TUESDAY, SEPTEMBER 6—SECOND DAY—AFTERNOON SESSION.

*Dr. James C. Cameron*, of Montreal, Canada, read a paper entitled

## THE INFLUENCE OF LEUKEMIA ON PREGNANCY.

In this he showed, by a *résumé* of the literature how incomplete our knowledge of the subject still was.

The case which he reported was unique, in that pregnancy recurred successively during the progress of the disease, and was also interesting in showing a marked hereditary tendency—the parents of the patient and her six children being all leukemic.

*Prof. A. Charpentier*, of Paris, France read a paper entitled

## L'UREMIE EXPERIMENTALE.

In this he detailed the results of certain experiments made by him on the artificial production of uremia in gravid animals, by the injection into the blood, at intervals, of urea until it was present in excess. In these cases the death of the fetus preceded that of the mother, and the quantity of urea in its veins was in excess of that in the mother's. The death of the fetus was caused by this excess of urea in its circulation.

*Dr. Wm. T. Lusk*, of New York, thought the paper illustrated a most important point. The explanation of the manner of death of the fetus was certainly ingenious. He had supposed that its death was due to the presence of carbonic dioxide in the blood of the mother.

*Dr. Alex. R. Simpson*, of Edinburgh, Scotland, read a paper giving the result of his efforts to secure



## UNIFORMITY IN OBSTETRICAL NOMENCLATURE,

presenting a schedule showing the proposed changes, and detailing some of the opinions he had received from eminent obstetricians. The subject had been opened at the Eighth International Congress, and he hoped this one would take some definite action in the matter.

After animated discussion a committee, consisting of Drs. Miller, Simpson, Lusk and King, was appointed to consider the matter, and report on Friday, the 9th inst.

*Dr. William T. Lusk*, of New York, presented a most scholarly paper on

## THE PROGNOSIS OF THE CESAREAN SECTION.

If it were proposed to beat out the brains of a living child, the suggestion would be received with horror, no matter how great the surgical emergency might be, and yet, with the child unborn, craniotomy was often done for insignificant reasons. A careful *résumé* of the statistics showed very favorable results, even with the old method, when the surroundings were favorable, and the operation was performed with proper surgical skill and accessories. Death was most often the result of an avoidable cause. The reader compared the brilliant results obtained abroad with the mortality attending recent American operations, and thought that a more favorable prognosis could not be expected until we had learned to recognize the conditions requiring the operation before the time when it should be done.

Defective diagnosis was the great bar to progress in this country, and all practitioners should qualify themselves to recognize the various degrees of pelvic deformity. An operator should possess at least a theoretical knowledge of the technique of the procedure, and while it was not desirable that everyone should attempt to perform the section, men capable of doing the operation could usually be found, even out of the larger cities.

The paper closed with a plea for Cesarean section as opposed to craniotomy, even in pelves with a conjugate of three inches.

*Dr. M. Saenger*, of Leipsic, Germany, presented a paper on

## THE CESAREAN OPERATION,

which was read in abstract.

Saenger's operation was to be preferred to the Porro when the child was living and could not be delivered by any other operation, or when the child was dead and could not be delivered by crani-

otomy or embryotomy, or could be so delivered only with the greatest danger to the mother. Good results could be obtained by the Cesarean section only under certain conditions and when the operation was performed according to certain approved technical principles. These conditions are: 1. The maintenance of an aseptic condition in the uterine cavity, and, 2, early performance of the operation.

Saenger thinks that the cause of the greater American mortality is delay, and only trying the section when other operations have been unsuccessful. He lays stress on the following:

1. Antiseptic precautions as in other laparotomies.
2. The abdominal incision should be made through the linea alba over the middle of the fundus, about sixteen centimetres long.
3. It is not advisable to evert the unopened uterus, as it requires a large incision, except where the fetus is dead or there are not sufficient assistants.
4. The elastic ligature is not to be used before the uterus is opened, as it endangers the life of the child, or may incarcerate parts of the child, so that it may have to be loosened at a time when the operator requires his hands for more important matters.
5. Open the uterus in situ, by a frontal median incision; cut through placenta, or push it to one side; extract child by the legs; if head is caught, extend incision upward, to prevent any downward laceration of the uterus. At same time, assistant is to press abdominal walls toward uterus to prevent prolapse of intestines or flow of fluid into the abdominal cavity.
6. The danger from hemorrhage is not so great as is commonly supposed. By pressure on the inferior segment, and by slight torsion or flexion of the uterus and broad ligaments, the bleeding can be much lessened. Do without elastic ligature if possible.
7. Care must be taken in regard to three points in suturing: 1. Accurate union of the incised surface of the uterus by numerous sutures, whereby a broad and close union is obtained. 2. Avoidance of suture-canals in the uterine cavity. 3. Especially careful union of the serous surfaces. Silk is preferred to silver-wire, because silk can be absorbed. Excellent results can be obtained with catgut prepared in oil of juniper, chromic acid or mercuric bichloride.

Saenger's indications for the Porro operation are: When the flow of secretion from the uterus is impeded by stenosis of the cervix or

vagina, or, in some cases of tumors of the corpus uteri, myomata, etc. He prefers Cesarean section where the myomata are retro-cervical or retro-vaginal, because the removal of the whole mass is then impossible or dangerous, and the removal of the uterus does no good. In osteomalacia he prefers the Cesarean section with removal of the ovaries to the Porro operation. He takes exception to Martin's recommendation to do the Porro operation in cases in which the puerperium becomes dangerous to the patient, as in far-advanced affections of the heart or lungs. He thinks such a case has as good a chance of recovery after Cesarean section as after Porro's operation.

*Dr. W. H. Wathen*, of Louisville, Ky., read a paper on

#### ABDOMINAL SECTION FOR REMOVAL OF THE FETUS.

He urged that abdominal section should be done in all cases, instead of craniotomy, where the child was living. The uterine sero-serous suture and careful toilet of the peritoneum were indispensable.

WEDNESDAY, SEPTEMBER 7—THIRD DAY—MORNING SESSION.

#### DISCUSSION ON CESAREAN SECTION.

*Professor Alex. Simpson*, of Edinburgh, was in accord with the ideas expressed in *Dr. Lusk's* paper, though he did not think the time yet come when craniotomy should be entirely laid aside; its performance, however, should be restricted.

At present he would be bold who would perform Cesarean section by other than the *Saenger* method. Where the uterus was diseased and its removal would give the patient a chance, he would employ *Porro's* method.

*Professor A. Martin*, of Berlin, considers the *Saenger* modification very important, and one which has rendered the operation safe. Since the adoption of this modification the section had been done in some cases where he thought version could have been safely performed. In moderate degrees of pelvic contraction we should ascertain whether delivery could not be effected in other ways, as by version, before performing the section. Had done the Cesarean in pregnancy complicated with cervical myomata. *Saenger* had operated in similar cases. Where carcinomata of the organs in the pelvis endangered life we should endeavor to deliver child and remove growth at the same time. When the uterus was



infected by septic material it should be removed. The Cesarean section always gives us hope of perfect recovery, while the Porro operation prevents future maternity.

Abdominal section is indicated when it seems impossible to bring a living child through the pelvis; when neoplasmata narrow the canal or endanger the progress of parturition; and when diseases are present in which the life of mother and child would be endangered by the process of parturition or the puerperium.

The Cesarean section should be done when we have reason to believe that the patient can endure another pregnancy, the Porro operation, or total extirpation, when there is no hope of future maternity, or where the disease, from its nature or seat, is probably fatal.

*Dr. Doléris*, of Paris, France, accorded with the views of Lusk and Martin. He believed in the use of the elastic ligature.

*Dr. W. W. Jaggard*, of Chicago, Ill., said, with reference to the *relative indication* for Cesarean section, that in cases where the child could pass *per vias naturales*, when diminished in volume, with safety to the mother, as, for example, in pelvic contractions of from 6 to 8 ctm. in the conjugate, four considerations should receive attention :

I. Craniotomy does not require a higher degree of operative skill than every qualified obstetrician ought to possess, when proper instruments are employed, *e. g.*, Braun's curved trepan and cranioclast.

II. The mortality of craniotomy, when performed in time, and before exhaustion and infection of the woman, with adequate skill and antiseptic precaution, is, as remarked by Barnes, practically nil.

III. The consent of the woman, obtained without direct or indirect coercion, an essential condition of the relative indication, is seldom gained, if the facts be presented to her.

IV. That there is much sentimentalism with reference to the value of the life of the child in utero, as compared with the value of the life of the mother. This interest in the child is purely impersonal and scientific. The delight in saving the child's life is frequently that arising from the success of a difficult scientific experiment.

*Dr. William T. Lusk*, of New York, said that the points made by Dr. Jaggard were opposed to his recent investigation. With skill we could remove a living child where the contraction was only 7 to 10 ctm. Craniotomy was a dangerous operation, and, under

three inches, required much skill and good instruments. He believed the Cesarean section not more dangerous than the extraction of the child after craniotomy.

In his recent case the operation was done in the open ward, with the same preparations as for ordinary laparotomy. The children, according to his researches, did not die, as general opinion would have it. The Cesarean section was easy to do. He thought there was danger in the employment of the elastic ligature from paralysis and inertia caused by the compression. We did not want to encourage trying craniotomy and then Cesarean section, but should make the latter the operation of election. Most of our cases had been done under circumstances which had rendered death inevitable.

#### AFTERNOON SESSION.

*Dr. J. A. Doléris*, of Paris, France, presented a paper on the  
TREATMENT AND SURGICAL RESTORATION OF THE CERVIX DURING  
PREGNANCY.

He first described a case where at a previous pregnancy the cervix had been very extensively lacerated. The patient was again several months pregnant, and suffered from a profuse, fetid, probably gonorrheal discharge. There was severe vaginal pain, and the cicatrix of the cervical laceration was very painful when touched. Preliminary treatment did not relieve the patient and the cervix was sewed, four sutures being placed on either side; vagina filled with iodoform gauze. Result excellent. No interference with the pregnancy. In several similar cases he had operated successfully.

*Dr. Joseph Kuecher*, of New York City, read an elaborate paper  
ON THE RELATION OF THE ATMOSPHERE TO PUERPERAL FEVER.

Overcrowding does not necessarily cause puerperal fever when septic infection is prevented. Pure air undoubtedly allows of more rapid convalescence; bad air depresses and allows the more easy access of septic infection; sepsis does not occur from bad air alone, but only from direct contact with septic matter.

*Dr. Thomas More-Madden*, *F. R. C. S., Ed.*, of Dublin, Ireland, presented a paper

ON THE PREVENTION AND TREATMENT OF PUERPERAL SEPTICEMIA,  
which was read by the Secretary.

The author considers all forms of septic fever consequent on

parturition, and occurring within the puerperal period, as various manifestations of a specific puerperal sepsis which may originate from inoculation with the micrococci of clinically allied diseases, such as erysipelas or scarlatina; from infection by the pathognomonic, chain-like micro-organisms evolved by other puerperal fever patients; or from auto-infection with self-generated septic matter.

For prophylaxis the author strongly recommends the administration, during the later months of pregnancy, of the chlorates of iron, potash, and quinine. Strict attention to the patient's local and general hygienic and aseptic condition is insisted upon. The author uses a carbolized intra-uterine douche daily throughout the puerperium, together with large doses of ergot for the same time.

In the treatment of puerperal fever he relies primarily on the maintenance of the patient's strength by suitable nourishment and stimulants; secondly, on the daily washing out of the uterine cavity with hot water, plain or medicated; thirdly, on full doses of quinine and turpentine—which latter drug he believes to be especially valuable in every form of puerperal fever.

*Dr. Chas. Warrington Earle*, of Chicago, Ill., presented

A STUDY OF CERTAIN QUESTIONS IN CONNECTION WITH PUERPERAL  
FEVER WITH PARTICULAR REFERENCE TO THE USE OF THE  
INTRA-UTERINE DOUCHE AND CURETTE.

He holds that puerperal fever is in every instance produced by infection from without. No one could now disbelieve the germ-theory.

The only rational treatment was to remove all decomposing material, and prevent a local poison from invading the entire system and producing general sepsis.

Any marked rise of temperature in the puerperal woman should be investigated, and, if not plainly due to other causes, the genital tract should be suspected. A vaginal and uterine douche not reducing it, the uterus should be curetted, using a large, blunt instrument with all antiseptic precautions and great gentleness; the curetting to be followed by an intra uterine douche to carry away all loosened shreds.

He did not wish to be understood as advocating the indiscriminate use of this measure, it being indicated only in those cases where the high temperature persisted after an intra-uterine douche, when it was extremely valuable.

*Dr. R. Lowrey Sibbet*, of Carlisle, Pa., read a paper on



## THE PREVENTION OF PUERPERAL FEVER.

The contagium was always from without, and was never autogenetic. It was carried always by the medical attendant or nurse. Aseptic cleanliness on their part was the best prophylaxis.

THURSDAY, SEPTEMBER 8TH—FOURTH DAY—MORNING SESSION.

*Dr. Alexander Simpson*, of Edinburgh, Scotland, occupied the chair—*Dr. Miller* being called away by a death in his family. The Section passed resolutions of condolence and sympathy.

*J. B. B. B.*, of Paris, France, read some remarks on a case of

## TYPHOID FEVER IN THE PUERPERAL WOMAN.

Seven days after labor, grave symptoms of true typhoid fever appeared; the disease running its course and the patient recovering. The report was made to call attention to the importance of distinguishing typhoid in the puerpera, from septicemia.

*Dr. Rodney Glisan*, of Portland, Ore., presented a paper on  
CONSERVATIVE OBSTETRICS; WITH SPECIAL REFERENCE TO THE  
REMOVAL OF THE SECUNDINES AFTER ABORTION, AND  
THE TREATMENT OF THE THIRD STAGE OF LABOR.

He thought that the expectant method of treating retained secundines after abortion and the placenta after labor was unsafe in private practice, especially when the doctor resided at a distance from his patient, yet it might succeed fairly well in hospitals under the constant vigilance of experienced practitioners.

He approves of the immediate removal of the secundines after abortion in all cases where the cervix is somewhat dilated or dilatable, as is generally the case for an hour or so after the expulsion of the embryo, and in all cases of septicemia or dangerous hemorrhage, no matter when they occur. When neither of these accidents is present, and the cervix closed, he does not advocate the immediate and forcible removal of the secundines, but would wait a more favorable condition, when the finger could be easily inserted, moderate hemorrhage being controlled by ergot, the tampon, etc. No instrument in these cases was so safe, trustworthy, and generally useful as the finger. He adopts the bimanual method, depressing the uterus with one hand to within reach of the finger of the other, giving an anesthetic, if necessary.

Others present expressed the same views.

## AFTERNOON SESSION.

*Dr. Edward Henry Trenholme*, of Montreal, Canada, presented a consideration of

## INTERNAL UTERINE HEMORRHAGE, THE RESULT OF OVER-DISTENSION OF THE UTERUS FROM HYDRAMNIOS.

A posthumous paper by *Dr. W. T. Taylor*, of Philadelphia, on  
MATERNAL IMPRESSIONS AFFECTING THE FETUS,  
was read by title.

*Dr. William T. Stewart*, of Philadelphia, Pa., read a paper on  
THE IMPORTANCE OF ACCURATE DIAGNOSIS IN PREGNANCY WITH  
THE HISTORY OF A UNIQUE CASE OF RETROFLEXION OF  
THE GRAVID UTERUS, LABOR AT TERM.

*Dr. John Bartlett*, of Chicago, Ill., presented  
A STUDY OF DEVENTER'S METHOD OF DELIVERY OF THE AFTER-  
COMING HEAD,

supplementing the paper with a demonstration upon the phantom.

Deventer spoke in the most confident manner of the success and safety of podalic version, and of the ease with which the head could be delivered, but did not describe his method, which, however, *Dr. Bartlett* had found mentioned in *Smellie's* work. Deventer's method was shown to consist of a reversal of the so called Prague method, in that the body of the child was carried far backward toward the perineum, with the view of turning the occiput out from under the pubes, the anterior surface of the neck resting on the perineum. At the beginning the occiput of the child was turned forward, so as to come under the pubes as the child was drawn down. The arms were *not* to be drawn down, but left up alongside the head, being placed so as to come anterior to either parietal base. The delivery by traction backward upon the body was to be aided by pressure made immediately above the pubes, the wedge formed by the head and arms being decomposed by the withdrawal of the larger transverse diameter of the head from between the arms, as descent of the head accompanied by extension occurs. The mechanism was only favorable when the occiput was anterior. Deventer never lost a child or tore a mother. The arms being left up, protected the neck of the child and allowed a passage for the cord alongside of them, so that haste was not as necessary as with ordinary methods, and, occupying a broad and yielding

part of the pelvis, they did not obstruct delivery. The method was a plausible one, and certainly worthy of trial in suitable cases.

*Dr. J. E. Kelly*, of New York, read an elaborate paper, entitled

#### LITHIASIS IN PREGNANCY.

*Dr. E. P. Christian*, of Wyandotte, Mich., read a statistical paper on

#### THE PROPORTION AND CAUSES OF STILL BIRTHS.

The average for states and countries was about four per cent.; for large cities, seven per cent. His personal statistics, in a small manufacturing town, were a little less than four and a half per cent. in 1,675 labors, including 17 cases of twins.

Prominent among the causes of mortality were syphilis, intemperance and ergot.

*Professor Alexander Simpson* spoke of the value of such statistical researches and of the labor they require. He strongly condemned ergot, given before the birth of the child, as being a most fruitful cause of still-births.

#### FRIDAY, SEPTEMBER 9—FIFTH DAY—MORNING SESSION.

The Committee appointed to formulate resolutions in regard to

#### UNIFORMITY IN OBSTETRICAL NOMENCLATURE,

submitted its report, which, after an animated discussion, was unanimously accepted, the only dissentient voice being that of *Martin*, of Berlin, who was not present but had left a message stating that he thought the matter should not be settled by an American Congress, but should wait three years and be accepted or not by a Congress meeting in the Old World.

#### REPORT AS ACCEPTED.

A. It is desirable to try to attain to uniformity in obstetrical nomenclature.

B. It is possible to arrive at uniformity of expression in regard to:

1. The Pelvic Diameters; 2. The Diameters of the Fetal Head; 3. The Presentations of the Fetus; 4. The Positions of the Fetus; 5. The Stages of Labor; 6. The Factors of Labor.

C. The following definitions and designations are worthy of general adoption by obstetric teachers and authors:

1. PELVIC BRIM DIAMETERS.—1. Antero-posterior: (1) Between the middle of the sacral promontory and the point in the



upper border of the symphysis pubis crossed by the *linea terminalis*—*Diameter Conjugata vera*, Cv. (2) Between the middle of the promnatory of the sacrum and the lower border of the symphysis pubis—*Diameter Conjugata diagonalis*, Cd.

2. Transverse: Between the most distant points in the right and left ileo-pectineal lines—*Diameter Transversa*, T.

3. First Oblique: Between right sacro-iliac synchondrosis and left pectineal eminence—*Diameter Diagonalis Dextra*, D. D.

4. Second Oblique: Between left sacro-iliac synchondrosis and right pectineal eminence—*Diameter Diagonalis Leva*, D. L.

II. FETAL HEAD DIAMETERS.—1. From the tip of the occipital bone to the centre of the lower margin of the chin—*Diameter Occipito-Mentalis*, O. M.

2. From the occipital protuberance to the root of the nose — *Diameter Occipito Frontalis*, O. F.

3. From the point of union of the neck and occiput to the centre of the anterior fontanelle — *Diameter sub-Occipito-Bregmatica*, s. O. B.

4. Between the two parietal protuberances — *Diameter Bi-Parietalis*, Bi-P.

5. Between the two lower extremities of the coronal suture—*Diameter Bi-Temporalis*, Bi T.

PRESENTATION OR LIE OF THE FETUS.—The *presenting part* is the part which is touched by the finger through the vaginal canal, or which, during labor, is bounded by the girdle of resistance.

The *occiput* is the portion of the head lying behind the posterior fontanelle.

The *sinciput* is the portion of the head lying in front of the *bregma* (or anterior fontanelle).

The *vertex* is the portion of the head lying between the fontanelles and extending laterally to the parietal protuberances.

Three groups of presentations are to be recognized, two of which have the long axis of the fetus in correspondence with the long axis of the uterus, while in the third the long axis of the fetus is more oblique or transverse to the uterine axis.

1. Longitudinal: (1) Cephalic, including—vertex and its modifications; face and its modifications; (2) pelvic, including—breech, feet.

2. Transverse or trunk, including shoulder, or arm and other rarer presentations.

IV. POSITIONS OF THE FETUS.—The positions of the fetus are best named topographically, according as the denominator looks—first, to the left or the right side, and second, anteriorly or posteriorly. When initial letters are employed, it is desirable to use the initials of the Latin words.

In the case of Vertex positions we have:

Left Occipito-Anterior—*Occipito Leva-Anterior*, O. L. A.

Left Occipito-Posterior—*Occipito Leva-Posterior*, O. L. P.

Right Occipito-Posterior—*Occipito Dextra-Posterior*, O. D. P.

Right Occipito-Anterior—*Occipito Dextra-Anterior*, O. D. A.

The Face positions are:

Right Mento-Posterior—*Mento-Dextra-Posterior*, M. D. P.

Right Mento-Anterior—*Mento Dextra-Anterior*, M. D. A.

Left Mento-Anterior—*Mento Leva Anterior*, M. L. A.

Left Mento-Posterior—*Mento-Leva-Posterior*, M. L. P.

The Pelvic positions are:

Left Sacro-Anterior—*Sacro-Leva Anterior*, S. L. A.

Left Sacro-Posterior—*Sacro-Leva-Posterior*, S. L. P.

Right Sacro-Posterior—*Sacro-Dextra-Posterior*, S. D. P.

Right Sacro-Anterior—*Sacro-Dextra-Anterior*, S. D. A.

The Shoulder presentations are:

Left (left and right side of the mother) Scapula-Anterior—*Scapula-Leva-Anterior*, Sc. L. A.

Left Scapula-Posterior—*Scapula-Leva-Posterior*, Sc. L. P.

Right Scapula-Posterior—*Scapula-Dextra Posterior*, Sc. D. P.

Right Scapula-Anterior—*Scapula-Dextra-Anterior*, Sc. D. A.

V. THE STAGES OF LABOR.—Labor is divisible into three stages: (1) First Stage—from the commencement of regular pains till complete dilatation of the os externum—*Stage of Effacement and Dilatation*. (2) Second stage—from dilatation of os externum till complete extrusion of child—*Stage of Expulsion*. (3) Third stage—from expulsion of child to complete extrusion of placenta and membranes—*Stage of the After-birth*.

VI. THE FACTORS OF LABOR ARE—(1) The Powers. (2) The Passages. (3) The Passengers.

(Signed)

DE LASKIE MILLER, M. D.,

*President of the Section.*

A. F. A. KING, M. D.

WILLIAM T. LUSK, M. D.

A. R. SIMPSON, M. D.

*Dr. R. S. Stringer*, of Florida, presented a paper on  
A RATIONAL METHOD OF RELIEVING ASPHYXIA NEONATORUM,  
which, in the absence of the author, was read by title.

*Dr. Ira E. Oatman*, of San Francisco, Cal., read a paper on the  
TREATMENT OF PUERPERAL ECLAMPSIA.

After giving a sketch of the disease and the usual methods of treatment, he recommended: When the convulsions occurred before labor, anesthesia and clearance of bowels and rectum, together with as rapid delivery as was compatible with the safety of the patient. When the convulsions occurred after delivery and were accompanied by high, nervous, and vascular tension, nothing was so safe, speedy, and reliable as veratrum viride. This he gave in the dose of  $\mathfrak{m}$  vj. by mouth, or  $\mathfrak{m}$ x. by rectum, repeated every fifteen minutes until the convulsions ceased.

Should the veratrum cause excessive depression, an immediate and certain antidote was found in alcohol. It was better to give the veratrum in excessive doses than to risk the continuance of the convulsions, for the brandy or whiskey to counteract its effect were always present, and the veratrum certainly exhibited a remedial action not otherwise attainable.

*Dr. G. Lane Taneyhill*, of Baltimore, Md, advocated strongly the use of veratria in eclampsia, and said that fifty per cent. of his cases had, in the last twenty years, been treated by it, he giving ten drops of the tincture hypodermatically every hour of convulsive action and always keeping another hypodermic syringe with brandy to sustain the heart should the pulse go below forty-two. He had not lost one case of eclampsia since using veratria; it enabled him to hold the engine (the heart) in check as an engineer with the air-brake, and was not as dangerous a medicine as was generally supposed. It produced the same effect as bleeding, save that no blood was lost to weaken the patient afterward.

*Dr. Lawrence*, of Bristol, England, believed in as early delivery as possible, and the use of chloral. In plethora, bleeding was sometimes useful.

*Dr. A. F. A. King*, of Washington, D. C., had never used veratria in eclampsia, but had suggested its use twenty years ago theoretically (*New York Medical Journal*, October, 1865), to lessen arterial hyperemia of the nerve-centres, by reducing the force of the heart. He then, and more recently (in the *American Journal of Obstetrics*, March and April, 1887), considered, and still considers



eclampsia to be caused chiefly (and in addition to uremic poisoning) by abnormal pressure of the gravid womb upon the aorta and its branches, and vena cava and its branches. He believes this abnormal pressure to be chiefly due to premature descent of the lower uterine segment and fetal head below the brim into the pelvic cavity, especially in primiparæ two or three months before full term.

In transverse presentations, whether in multiparæ or primiparæ, eclampsia does not occur. The head of the child ought not to sink below the pelvic brim before labor—in fact, such descent is the second stage in the mechanism of labor. Yet recent authorities affirm that it is usual, and therefore normal, in primiparæ. This he denies. He maintains that the normal posture of the fetus during pregnancy, before labor begins, is transverse or oblique; a head-presentation is abnormal until the sinking of the womb just before delivery, when it changes in order that labor may take place. To remove the cause of and prevent eclampsia, we should, by posture and manipulation, lift the prematurely descended head out of the pelvis, and put it above the brim in one of the iliac fossæ, where it normally belongs, and where it would have remained but for corsets, dress, coitus, and other displacing influences.

*Dr. W. W. Jaggard*, of Chicago, Ill., said: 1. Eclampsia is a symptom of renal insufficiency, renal inadequacy, to use a term of Sir Andrew Clarke's, the result of functional or organic disease. The arguments of Dr. A. F. A. King were entirely inconclusive. 2. The cause of the convulsions is cerebral anemia the result of vaso-motor spasm, caused by irritation of the vaso motor centre by excrementitious matter retained in the blood. 3. Indication for treatment, absolute, continued narcosis, chloroform, potassium bromide, chloral, morphine. *Veratrum viride*, according to researches of Wood and Behrens, of Philadelphia, causes vaso-motor dilatation, and the woman is literally "bled into her own veins." At the same time, when this remedy is employed a hypodermic syringe filled with brandy must be ready. *Pilocarpin* is unreliable, causing cardiac depression, and aiding in edema pulmonum when no diaphoretic action is effected. Professor Fordyce Barker has frequently called attention to this fact.

*Dr. Oatman* said that he had seen large doses of as much as a dram of the fluid extract of *veratrum* taken by mistake and recovered from without treatment.

## AFTERNOON SESSION.

*Dr. H. O. Marcy*, of Boston, Mass., read an elaborate paper on the

## HISTOLOGY AND PATHOLOGY OF REPRODUCTION.

*Dr. E. Paul Sale*, of Aberdeen; Miss., read a paper on the  
MANAGEMENT OF PREGNANCY, WITH REFERENCE TO THE PREVEN-  
TION OF POST-PARTUM HEMORRHAGE,

in which he strongly insisted upon the value of prophylaxis, undertaken months before delivery, during which time the patient should be under the supervision of the accoucheur.

*Dr. George Wheeler Jones*, of Danville, Ill., read a paper on  
DYSTOCIA FROM RIGIDITY OF THE CERVIX AND ITS MANAGEMENT.

A paper by *Dr. John H. Wilson*, of Chicago, Ill., entitled  
"Puerperal Uremic Amauroses" was read by title.

## SECTION IN GYNECOLOGY,

*Henry O. Marcy M. D. LL. D.*, Boston, Mass., President.

*Secretaries:* *Dr. Georges Apostoli*, Paris, France; *Dr. Ernest W. Cushing*, Boston, Mass.; *Dr. Horatio R. Bigelow*, Washington, D. C.; *Dr. Carl Pawleck*, Vienna, Austria.

## MONDAY, SEPTEMBER 5TH—FIRST DAY—AFTERNOON SESSION.

The President welcomed the foreign guests in the name of the profession of the entire country.

*Dr. Nathan Bozeman*, of New York, read a paper entitled,  
ARTIFICIAL AND COMBINED DRAINAGE OF THE BLADDER, KIDNEYS,  
AND UTERUS THROUGH THE VAGINA, WITH AND WITHOUT  
GRADUATED PRESSURE.

In this paper the author described an instrument which he had devised recently, and urged the importance of efficient treatment of urinary fistulæ.

*Dr. Horatio R. Bigelow*, of Washington, D. C., read a paper on,

## CONSERVATIVE GYNECOLOGY.

*Dr. W. W. Potter*, of Buffalo, N. Y., read a paper on,

## THE USE OF THE VAGINAL TAMPON IN PELVIC INFLAMMATION.

One of the important consequences of a more accurate classifica-

tion of pelvic disease had been to invite surgical aid and interference in regions previously considered unsafe for the knife, and for maladies hitherto regarded incurable. The case was reported, from which the following deductions might fairly be drawn:

1. That many cases of disease of the uterine appendages might be arrested in their progress and diverted to successful issue without operation by appropriate treatment resorted to in their earliest stages.

2. That the early employment of regular, prolonged, and systematic vaginal tamponnement afforded one of the safest, surest, and simplest ways of preventing the ravages in whole or in part, of the maladies in question, and of averting that mutilating of the sexuality of woman consequent upon excision.

This gave him the opportunity of offering some remarks upon the employment of vaginal tamponnement in the treatment of vaginal disease in general.

In order to obtain the full benefits of this treatment, it was of the first importance that the packing be well done; that it be so placed as to afford ample support, give secure rest to the parts, make firm pressure, and not become dislodged during its wearing; while, at the same time, it must not produce discomfort, interfere with the functions of the pelvic organs, nor cause irritation in the least degree. The tampon must be multiple, and not made up of a single wad or mass, as was too often done.

*Dr. J. E. Burten, LL. D.*, of Liverpool, England, read a paper on the subject,

#### WHEN SHALL WE OPERATE IN TUBAL PREGNANCY?

The author considered these operations dangerous to life, more so, perhaps, than ovariectomies, while the diseases, for which they are recommended and performed are, as a rule, not so.

The operation itself is justifiable in:

1. Rapidly growing or bleeding myomata after other treatment patiently carried out has failed.

2. Pyosalpinx, if life is threatened by repeated attacks of peritonitis.

3. Chronic ovaritis (especially inflammation of the albuginea when Graafian vesicles burst through), when the pain is fixed and constant and months have been spent in unavailing treatment.

4. Parametritis, which, though it may not be dangerous to life at the time, may render the patient a permanent invalid.



5. Cystic degeneration of the ovaries, under the same condition as to pain as No. 4.

6. Neuroses distinctly of ovarian origin that have withstood years of treatment.

The operation is not justifiable in;

1. Myomata, except as noted.

2. Pyosalpinx, if the disease has become quiescent, if pain and fever have subsided and the pus has become inspissated.

3. Hydrosalpinx at any time, unless an associated perimetritis demand removal of the parts. A less radical operation will usually suffice.

4. Perimetritis, unless the disease promises to render the patient a permanent invalid.

5. Ovaritis, except under conditions noted.

6. Cystic degeneration of ovaries, except under conditions noted.

7. Hematocele and hematosalpinx under any conditions. Laparotomy and drainage may be called for, but removal of the organs, never. The same applies to ectopic gestation.

TUESDAY, SEPTEMBER 6TH—SECOND DAY—MORNING SESSION.

*Thomas More-Madden M. D., F. R. C. S., Ed.,* Dublin, Ireland, read a paper on,

#### THE CAUSES AND TREATMENT OF BARRENNESS,

giving a statement of the causes of sterility in five hundred and twenty-eight cases of infecundity in married women within the child bearing period, which had come under observation in the gynecological department of his hospital.

According to this the most frequent cause of sterility is stenosis of the cervical canal.

The essential features of the treatment are the separation by cutting and simultaneous, forcible expansion of the affected parts, followed by dilatation during the period of cicatrization, so as to prevent their subsequent contraction, and thus to secure the permanent patency of the erst occluded passage. To obtain this result he used three instruments, viz., a special form of uterine director which can, generally speaking, be introduced into any cervical canal, however narrow, and along which a serrated, triangular-guarded knife is made to travel up through the os internum; and, thirdly, a uterine dilator of great power, by which any required degree of

cervical expansion may be effectually secured and accurately gauged.

The influence of uterine flexions in the prevention of pregnancy and the treatment adopted in cases of sterility dependent thereon are next described. So also is the management of aphoria from chronic endometritis, and that of infecundity due to vaginal, uterine, and ovarian causes. More fully discussed is the subject of conceptive incapacity from morbid conditions of the Fallopian tubes, more common causes of sterility than usually thought. He holds that such tubal diseases may often be removed without resort to serious operative procedures as the removal of the uterine appendages. Therefore he refers at some length to those less heroic measures, such as aspiration and catheterization of the Fallopian tubes, the feasibility and successful results of which he has clinically demonstrated.

*Dr. Graily Hewitt*, of London, described his method of treatment carefully, and expressed his conviction that the good done was through the straightening of the uterus, not the dilatation.

*Dr. Lapthorn Smith*, of Montreal, and *Dr. Daniel T. Nelson*, of Chicago, thought that in many cases the male was at fault.

*A. Reeves Jackson, A. M., M. D.*, of Chicago Ill., read a paper on,

#### THE MODERN TREATMENT OF UTERINE CANCER.

Conclusions: 1. Any operation for cancer which does not completely remove the disease will be followed by recurrence.

2. During life the limit of cancerous disease originating in any part of the uterus cannot be known: hence no operative procedure can guarantee complete removal.

3. In view of this fact, no operation is justifiable which greatly endangers life, provided other and safer methods are available.

4. Vaginal hysterectomy is more dangerous, in a certain sense, than the disease against which it is used; that is, a given number of patients afflicted with uterine cancer will live longer without than with the operation.

5. Other methods of treatment, attended by not more than one-sixth to one-fourth the mortality of vaginal hysterectomy, are equally efficient in ameliorating the symptoms and retarding the progress of the trouble, and they have been followed by as seemingly good results as regards recurrence. Hence they should be preferred.

6. Vaginal hysterectomy does not avert or lessen suffering; it destroys and does not save life. It is, therefore, not a useful but an injurious operation, and as such is unjustifiable.

*Professor Graily Hewitt*, of London, England, a paper read on,  
THE RELATIONS BETWEEN CHANGES IN THE TISSUE AND CHANGES  
IN THE SHAPE OF THE UTERUS.

He desired to call attention to a tissue-change sometimes observed on or soon after the arrival of puberty, especially in young women who have been inadequately nourished, consisting in undue softness of the uterine tissues, and associated with them in the beginning of uterine suffering. This undue softness is not "inflammatory" in its nature. It is associated with great flexibility of the uterus, and generally with marked flexion. The author first described it ten years ago, and has repeatedly remarked it since. It has recently been noticed by Dr. Charles D. Scudder, under the term "mollities uteri."

The recognition of the liability to occurrence of this initial change in the uterine tissues is to be regarded as very important, in the explanation of the origin and increase in degree of flexions of the uterus. In such cases the uterus being abnormally flexible, the flexion may be easily and gradually intensified by any ordinary exertion, but will be more likely to be much exaggerated and perpetuated by any severe and suddenly acting mechanical disturbance. The process by which the uterus becomes permanently flexed may thus be slow or rapid.

Hardening of the uterus occurs sooner or later. After hardening, the flexion is persistent.

In multiparæ a somewhat analogous condition is present, in what is known as "defective uterine involution," the uterine tissues being soft and wanting in resistance. As is generally admitted, slow flexions frequently originate at such times and under such circumstances.

The author contends that the interference with circulation present with uterine congestion is, in most cases, due to association of a weak blood-current and mechanical compression of uterine tissue, due to flexions present in such cases. The uterus being unduly soft, plastic, and moldable, takes a flexed shape, which often becomes perpetuated by the hardening process described by Jacobi as the result of chronic metritis.



## SECOND DAY—AFTERNOON SESSION.

*Dr. W. H. Wathen*, of Louisville, Ky., read an interesting paper on,

## RAPID DILATATION OF THE CERVIX UTERI.

The author had learned in the field of experience and observation the bad results obtained in efforts to dilate the cervical canal by tents, or to enlarge or straighten it by incision to cure dysmenorrhea and sterility. He begged to call attention to the more satisfactory means of rapid dilatation with the bivalve or double-bladed dilators now in use, and especially to the substitution of an instrument of his device for Goodell's modification of Ellinger's dilator.

He dilates the cervix in his office, without a local or general anesthetic, to the extent of half an inch, and allows the woman to walk or ride home a few minutes after. In dilatations of from three-quarters to one inch, he gives a hypodermic of morphia and atropia, then brings the patient under the influence of chloroform before operating. He urges great cleanliness, and all means to prevent septic infection.

In conclusion, he urged that the operation should not be performed if there is any pelvic inflammation or trouble in the tubes or ovaries; and never, in any case, until we are reasonably positive that the cause of the trouble is in the cervical canal.

## WEDNESDAY, SEPTEMBER 7TH—THIRD DAY—MORNING SESSION.

*Dr. Ernest W. Cushing*, of Boston, read a paper entitled,  
CANCEROUS DEGENERATION OF THE HYPERPLASTIC GLANDS OF  
THE CERVIX UTERI.

*Dr. Franklin H. Martin*, of Chicago, Ill., read a paper with the title

A METHOD OF TREATMENT OF FIBROID TUMORS OF THE UTERUS  
BY STRONGER CURRENTS OF ELECTRICITY BASED UPON  
EXACT DOSAGE.

The distinctively original feature of the paper was the description by Dr. Martin of his method of exact calculation of dosage, experiments being cited which showed that a certain local effect may be expected at an active electrode of given surface from a definite strength of current passing for a certain length of time.

In conclusion, the principal advantages of this method were summarized under six headings: (1). It is entirely free from danger; (2) it is absolutely painless; (3) it invariably checks hemorrhage; (4) it rapidly reduces the size of tumors; (5) it alleviates neuralgic pain; (6) it is a system of treatment of fibroid tumors of the uterus based upon principles which make exact dosage possible.

#### SOME POINTS IN THE PATHOLOGY AND TREATMENT OF LACERATIONS OF THE CERVIX UTERI.

The pathology and treatment of lacerations of the neck of the uterus have received an amount of attention, in America and elsewhere, which would appear exaggerated were it measured by the comparatively scanty attention as yet accorded in Great Britain. When he read a paper on Emmet's operation at the closing meeting of the Dublin Obstetrical Society, the very name of that operation, or the circumstances calling for trachelorrhaphy had never been alluded to in the transactions of the premier association of British obstetricians and gynecologists.

He is convinced by clinical experience, which is now tolerably large, that it is a far better and more rational practice, if any operative treatment be really required, to resort to the amputation of the entire extent of the mutilated and diseased cervix by either *écraseur* or galvano-cautery. He does not advise this operation indiscriminately; the majority of cases of cervical laceration need no operative treatment specially, and such an operation as the removal of the cervix is not to be undertaken without due caution and, above all, real necessity. When thus justified, however, the amputation of the cervix, despite the protestations of some eminent gynecologists, is as unquestionably legitimate as any operation in gynecological surgery. By this procedure, when successful, not only may the surgeon rapidly and effectually remove every trace of a morbid condition, which, if uncured, would probably entail a life of continual uterine discomfort, but we may also with certainty prevent the otherwise not improbable possibility of the lacerated and hypertrophied parts becoming the seat of malignant disease at a future period.

*Dr. Leopold Meyer*, of Copenhagen, Denmark, then read a paper on

CONTRIBUTIONS TO THE PATHOLOGY OF INFLAMMATION OF THE  
LINING MEMBRANE OF THE UTERUS (ENDOMETRITIS  
CORPORIS CHR.).

*Dr. Alfred C. Garrett*, of Boston, Mass., read a paper on  
TUMORS OF THE BREAST TREATED BY ELECTROLYSIS.

Many, or most of the tumors that so frequently occur in the human breast, can be completely cured, if treated while young, or new—that is, while in the first stage of existence, by certain mild applications of electrolysis.

To obtain uniform success by this method, we must plan to find these tumors as soon as possible after they form in the breast, while they are in a curable stage in the majority of cases.

However, we already know we cannot assume that every morbid lump that grows or appears in the human breast begins from the first a simple or non-malignant tumor, though the most of them seem to do so, judging from the uniformly successful results of these treatments by electricity when applied to the selected, new, or recent tumor.

We are not to resort to the usual electro-puncture needles, knife, wire, nor any active destructive electrolysis, nor any other means that produce solution of continuity. We are to employ simple surface applications of certain graduated, galvanic, steady currents, through peculiar, large, soft, and moist electrodes, so adjusted close to each side of the tumor as to cause this gentle chemical current to completely permeate the whole mass from side to side in its deeper parts, mainly toward the axilla; for about a half-hour at each séance. The tolerant and efficient strength, will be from ten to fifty milliamperes. The current required for each individual case cannot be stated in exact terms, as it is found in practice there is a wide difference in the resistance, tolerance, and effect in different persons; yet this point is of great importance.

AFTERNOON SESSION.

*Dr. W. H. Weeks*, of Portland, Me., read a paper on

MYOMA IN PREGNANCY.

*Dr. Lawrence*, of Bristol, England, discussed the question,

SHOULD A WOMAN SUFFERING FROM FIBROID TUMOR BE ALLOWED  
TO MARRY?



This is a question frequently presented to the physician and gynecologist, If the patient is not suffering from symptomatic troubles you may tell her that she will probably never be pregnant, but if pregnant she will probably have hemorrhage and may die of it. With this understanding, if she persists, let her marry. The doctor reported eight cases in brief. In one of these, after a large number of pregnancies, the tumor disappeared entirely.

*Dr. Alexander Dunlap*, of Springfield, O., read a paper on

#### THE EARLY HISTORY OF OVARIOTOMY IN AMERICA.

This was a resume of the trials and oppositions which the early American ovariatomists met with in prosecuting their work. The author's own work, which is well known to have been of great importance, though little of it has been published, was described minutely.

He went into the history of his first ovariectomy with all the enthusiasm of forty years ago, and you would have thought that you were with the young surgeon at the patient's house doing the operation. He invited ten medical friends to witness the operation. They declined, saying that they could see enough people die without seeing them killed. One of them presented himself at the time, an old retired army surgeon who was addicted to drinking. With this assistant and four students he operated. The patient was placed in bed after the operation, with no special shock, having watched every movement made with care and interest. She did well for four days, when she had a severe diarrhea which was brought under control. She did well for a time, when she was taken with an excessive excretion of urine and died on the twentieth day after the operation, evidently from excessive drainage from the kidneys. There was no septicemia. He was convinced that she died not from the operation but from theappings, which had deranged the system and were probably the cause of the kidneys acting as they did. His reports of this case were refused publication by the Cincinnati journals.

*Dr. Kimball*, of Lowell, Mass., was then called upon by the President to give his experience in early ovariectomy in the East. His story was quite similar to that of *Dr. Dunlap*, and his opposition as great. This opposition came mostly from the New England metropolis, Boston. Being asked for his first case, he said his first case was one in which he did not operate. He then reported

the first case in which he did operate about thirty-five or forty years ago. He invited ten physicians. During the operation he met with considerable difficulty in the form of nine cysts, and when he looked about for his assistants they had all left but one.

*Dr. Bozeman*, of New York, reviewed the history of ovariectomy after its abandonment by McDowell, of Kentucky, and its condemnation by the profession. *Dr. Miller* was the first to use chloroform as an anesthetic in ovariectomy in America. It was in Terre Haute, Ind., and he, *Dr. B.* gave the chloroform.

*Professor Dr. A. Cordes*, of Geneva, Switzerland, read a paper on the

#### MEDICAL TOPICAL TREATMENT OF UTERINE CANCER.

A paper was read by *Dr. A. Laphorn Smith, F. R. C. S.*, of Montreal, on

#### A NEW THEORY AND TREATMENT OF DISPLACEMENTS OF THE UTERUS BY ELECTRICITY.

and one by *M. Le Docteur Apostoli*, of Paris entitled

#### SOME NEW APPLICATIONS OF THE INDUCED OR FARADIC CURRENT TO GYNECOLOGY.

THURSDAY, SEPTEMBER 8<sup>TH</sup>—FOURTH DAY—MORNING SESSION.

*Dr. Ephriam Cutter*, of New York, read a paper on

#### GALVANISM OF UTERINE FIBROIDS.

*Dr. August Martin*, of Berlin, Germany, read a paper on

#### THE VAGINAL TOTAL EXTIRPATION OF THE UTERUS FOR CANCER.

Up to the end of 1886, 311 total extirpations have been performed on account of carcinoma uteri with 47 deaths, or 15.1 per cent. He believes that this rate of mortality will decrease, with more experience, as shown by the published tabular results of each of the operators. Already the total extirpation of the uterus for cancer shows better results, so far as immediate mortality is concerned, than removal of the breast for cancer. For the latter, *Kuster*, at the Twelfth Meeting of the German Surgical Society, in 1883, published 778 cases with a mortality of 15.6 per cent.

He believes also from a study of all the data at his command that the operation gives permanent results which force a recognition of it as superior to any other treatment of cancer as yet employed.

## FRIDAY, SEPTEMBER 9TH—FIFTH DAY—MORNING SESSION.

*Dr. Henry O. Marcy*, of Boston, the President of the Section, read a paper on

## THE HISTOLOGY AND SURGICAL TREATMENT OF UTERINE MYOMA.

The author presented an interesting array of micro-photographs. He showed a number of other cuts, and the specimen of a tumor which he had removed from a woman per vaginam, but which he would not attempt again, on account of its size; exhibited some instruments for the operation of removal of fibroid tumors, of his invention, and discussed the shoemaker's stitch.

*Dr. Caleb R. Reed*, of Middleport, O., read a paper on

## INTRA-UTERINE STEM PESSARIES.

In which he favored very strongly their use for promoting the flow of the menses in cases especially where there was an ill-developed uterus.

*Dr. Daniel T. Nelson*, of Chicago, read a paper on

## THE TREATMENT OF UTERINE MYOMA BY MEANS OF ERGOT.

The author had gone to much pains to gather statistics from the profession, and made a good argument for this mode of treatment.

A paper by *M. D. Spanton M. D.*, of Hanley, England, was read by *Dr. Edes*, of Manchester, England, on the subject of

## CYSTITIS IN WOMAN.

*Dr. Willian L. Reid*, of Glasgow, Scotland, read a paper on

## THE REMOTE RESULTS OF SHORTENING THE ROUND LIGAMENTS.

He had performed the operation eighteen times. He gave the opinions of the authorities, mostly British, and which was mostly unfavorable to the operation. The discussion which followed this paper was also rather unfavorable to the operation.

## AFTERNOON SESSION.

*Dr. J. H. Kellogg*, of Battle Creek, Mich., read a paper on

## ALEXANDER'S OPERATION,

and reported twenty cases. He favored the operation.

*Dr. W. C. Wade*, of Holly, Mich., read a paper on



## DISPLACEMENTS OF THE UTERUS,

his paper consisting of thirty-nine terse statements about displacements.

*Dr. Joseph Taber Johnston*, of Washington, D. C. read a paper on

THE TREATMENT OF COMMENCING OF THREATENED PERITONITIS BY  
BRISK PURGATION.

*Professor. Vulliett*, of Geneva, Switzerland, had two papers, Progressive Uterine Dilatation and the Buried Suture with Iodized Silk in Vesico-Vaginal Fistula. They were read in English by *Professor Cordes*, of Geneva.

*Dr. Addinell Hewson*, of Philadelphia, Pa. read a paper on

## ABDOMINAL SURGERY.

*Dr. D. H. Trenholme*, of Montreal Canada, read a paper on "Extirpation of the Uterus for Bleeding Myoma."

A number of papers were read by title and the Section adjourned.

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A POINT WORTH KNOWING.—*L. L. VON WEDEKIND* states that by simply pressing on the supraorbital notches with a steadily increasing force, we may certainly detect a malingerer, bring an unconscious alcoholic to his senses, and thus differentiate at once between alcoholic and other comas; cause cessation of hysterical convulsions, and in many cases quiet violent alcoholic delirium.

When the patient is recumbent, the physician, standing at the head of the cot, or kneeling when the patient is on the ground, fixes the tips of his thumbs over the supra-orbital notches, as above described, never minding the occasional yell or struggle, pressing steadily, gradually increasing the force, and in half a minute or minute the result is accomplished.—*Med. Record*, Aug. 27.

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AMERICAN PEDIATRIC ASSOCIATION.—At the close of the session of the Section on Diseases of Children of the International Medical Congress the preliminary measures were taken looking toward the organization of a new special society with the name given above. *Dr. J. Lewis Smith*, of New York and *Dr. W. D. Booker*, of Baltimore, Md., were chosen as provisional president and secretary.

## COMMUNICATION.

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### LACERATION OF CERVIX-UTERI AS CAUSE OF ABORTION.

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WINFIELD, ARK., Sep. 23, 1887.

EDITOR COURIER: I regret not having had Dr. Paul F. Mundé's "Minor Surgical Gynecology," by me, while looking for some authority on laceration of the cervix uteri as a cause abortion at the fifth month. Dr. Mundé was kind enough to write me privately upon the matter, calling my attention to the second edition of his work on gynecology, where he states the same thing that was giving me so much trouble.

I am always open for correction, and more especially, from such men as Prof. Mundé.

The subjoined letter is from Dr. Mundé,

I am yours truly,

CHEVER BEVILL.

NEW YORK, Sep. 16, 1887.

DR. CHEVER BEVILL.—DEAR DOCTOR: In your very apt reference to laceration of the cervix uteri, as a cause of abortion, which I have just read in the ST. LOUIS COURIER OF MEDICINE for this month, you state that only in Thomas' work have you found a mere mention of this fact, and that it seems to have escaped the notice of authors.

If you will turn to page 449, of my Minor Surgical Gynecology, second edition, 1885, Wm. Wood & Co., you will find that I not only give repeated abortion as one of the results of laceration of the cervix, but also explain how such a result so readily occurs. Also that not only sterility but also abortion may be caused by the laceration, the former through the profuse cervical discharge and hypertrophy, the latter in consequence of the exposure of the internal os and the lining membrane of the lacerated cervix to external irritation and friction

Very truly yours,

PAUL F. MUNDÉ.

## NOTES AND ITEMS.

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TO OUR SUBSCRIBERS.—We learn from the publisher that a considerable number of our subscribers have not yet settled their accounts for the current year and some also owe for last year as well. In order that any publication may succeed, it is necessary that there shall be hearty cooperation of the subscribers with the publishers and editors. The editors and publishers are putting forth every endeavor to make the *COURIER* first class in every respect, to make it such a journal as will fully commend itself to the profession.

Now will not our subscribers aid us by prompt settlement of their accounts and also helping to extend the circulation of the *COURIER*.

DR. ALONZO CLARK, for many years one of the most eminent physicians of New York City, died at his residence in that city, Sept. 13, at the age of eighty years.

Dr. Clark graduated from Williams College in 1828 and from the College of Physicians and Surgeons of New York in 1835. In 1848 he was elected Professor of Physiology and Pathology in his alma-mater, and in 1853 was transferred to the chair of Practice of Medicine. He was for many years actively connected with the staff of Bellevue and other hospitals, and was a working member of numerous societies. He was an able teacher, a skilful and successful practitioner and much sought consultant.

N. A. RANDOLPH, one of the editors of the *Medical and Surgical Reporter* died by drowning in the sea at Longport on the New Jersey coast, on Sunday, Aug. 21, 1887.

THE TEXAS *COURIER-RECORD* enters upon its fifth volume in a new dress and enlarged page. We congratulate its publishers upon the evidences of success in their enterprise.

THE CHICAGO *MEDICAL JOURNAL AND EXAMINER* has changed its form and now has 64 two column pages in each number.

THE NASHVILLE *MEDICAL NEWS* has been discontinued for want of support.



# ST. LOUIS COURIER OF MEDICINE.

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VOL. XVIII.

DECEMBER, 1887.

No. 6.

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## ORIGINAL ARTICLES.

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### DIVULSION OF THE CERVIX.

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BY GEO. F. HULBERT, M. D., *Late Superintendent St. Louis  
Female Hospital.*

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**A** GAIN is the medical profession called upon to observe a craze uterina.

For the last two years the medical press has been loaded with papers and reports of work done by that enthusiastic nomad, the gynecologist, with little, medium and large dilators. Our instrument stores have had in stock an innumerable variety and number of these instruments, obligingly serving customers with their usual urbanity.

The customer having become fully armed, goes out prepared and, may I say, determined to open up any cervix that refuses passage to the classical uterine sound. A certain man of the East, a Good-deal of a man at that, has placed before the profession at various times, much work done by this so-called harmless instrument, and issued the professional dictum that it is well, that gynecology has made another step toward or in progress.

In order that there may be no misunderstanding as to the meaning of our title, I will say that by divulsion of the cervix I mean rapid dilatation of the cervix, in contradistinction to gradual or slow dilatation.

This procedure is elevated to the dignity of an operation, when done as the direct means of relieving the morbid conditions in which it seems indicated. When done for the purpose of making the way for further surgical procedure, such as removal of tumors and curetting the endometrium, it has retained its less dignified position of a *step* in an operation.

The morbid conditions that have, in the opinion of those who have extensively practised it, demanded the operation, are several forms of dysmenorrhea, that condition termed stenosis, and sterility. In short, as an operation it is to take the place of the dilating tent, the use of which has been fraught with so much danger, and whose results have been so unsatisfactory.

As a proof of the above opinion regarding the operation, allow me to present the following, taken from the last paper on the subject by Dr. W. H. Wathen, of Louisville, read at the Ninth International Congress at Washington, D. C.:

“Having learned from experience and observation of the bad results obtained in efforts to dilate the cervical canal with tents, or to enlarge or straighten the canal by incisions to cure dysmenorrhea and sterility, I was pleased at the substitution of a method more satisfactory; so I beg to call your attention to rapid dilatation by the bi-valve, or double-bladed metallic dilators, such as are now used by many learned operators of this country with better results and fewer complications than by other means.

“Tents may be indicated in some instances, but I can hardly imagine a case where they would be preferable to the metallic dilators in operations to cure dysmenorrhea and sterility. The prognosis is not encouraging in the use of tents, and the good results sometimes apparently obtained are usually temporary. Tents are not easily introduced, frequently cause serious complications, and dilate imperfectly and slowly, often requiring several days to complete the dilatation. Endometritis, pelvic hematocele, pelvic, cellular or peritoneal inflammation, septicemia, pyemia, and tetanus, are some of the dangers accompanying or following their use. These complications are encountered when we least expect them, and no one of much experience in the use of tents has failed to have his share of trouble,

as the most rigid antisepsis is not a preventive in all cases. The tupelo tent is superior to any other material ; it is less likely to cause septic infection than the sponge, and dilates more rapidly, regularly, and better than the tangle. The two-bladed dilators are relatively aseptic, are easily used, complete the dilatation at one sitting, and the operation is comparatively free from immediate or subsequent dangers ; it nearly always cures the dysmenorrhea, and often removes the cause or causes of sterility.

“Briefly, the above has been the experience of the best workers in the field of gynecology. The results of incision of the cervix up to the vaginal junction, or through the os internum, anteriorly, posteriorly, or bi-laterally, have been even more unsatisfactory than those following the use of tents. The operation seldom cures the woman, has serious complications, and sometimes leaves a pathological condition of the cervix that demands trachelorrhaphy as in laceration. The graduated steel bougies possess no advantage over the double-bladed instrument ; the treatment is tedious and protracted, the complications comparatively frequent, and any good results generally temporary. I have operated many times with the two-bladed instrument, and have had uniformly good results with no complications.

“This has been the experience of Goodell, Mundé, Gill Wylie, Goelet and nearly every one who operates after this fashion.

“I have no concern about dilating the cervix in my office practice without local or general anesthesia to the extent of from one-third to one-half of an inch, the patients leaving immediately to walk or ride to their homes.”

The above being taken as the confession of faith on the part of those who approve and do this operation, that which interests us is the principle involved, and how it is brought about. The answer to this we may see by the confession is to *cure* their patients in the *best way*, certainly a laudable effort. This is accomplished to the rational mind by using means that will produce a maximum of benefit with a minimum of damage or danger, present or future.

At the possible risk of being considered prolix by my readers, I desire, in order to test the value of divulsion of the cervix, to present some facts and thoughts upon the uterus as a



whole, the body and cervix as parts, their design as regards form, structure and function, the principles established and their relation to means of relief from abnormal processes.

A glance at the history of gynecology will convince the mind that delusions and vagaries have ruled and had their day only too often. The result of this has been discredit to the specialty and gross abuse of the patient on the part of the specialist. One of the chief reasons of this lamentable state of affairs is due to the fact of a want of any definite or well grounded principle of truth in the work done. We have reasoned from effect to cause rather than from cause to effect. We all of us speak of imitating nature in means of relief, but in practice hardly reach the goal. There was a time when slitting the cervix wide open was the operation; now we have divulsion as the operation. The truth or the fact as to whether any procedure applied as a means of relief is correct and right, ought to be established by study of the uniformity of law and phenomena in nature and the manner in which she works, her wonders to perform. When we understand these, we can intelligently make the application. If the application results in a restoration of the natural order of things, it is simply due to the fact that truth is applied, whether the user knows it or not. A study of the uterine body in the virgin state especially, has been to me a matter of great interest, and in its normal condition and performance of its functions, indicated the manner in which very largely, and what the means of relief from disease should be. How often has the question been asked, Of what use or benefit is the cervix of the uterus? What is its object and purpose in the economy? I am of the opinion that it has a purpose, a necessary one; that in the entire organ there are clear evidences of a design for certain objects, that in the form, structure and relation of its several parts, are seen a perfect application of correct principles toward the accomplishment of its functions. In illustration of these truths I must appeal to certain facts clearly established in one of the collateral sciences, viz., hydrodynamics. First let us study the form of the uterus as a whole. By a reference to the following cut it is at once seen that there exists a system of conic frusta, the only deviation being in the one formed by the uterine cavity

above the internal os where it is more nearly an oblong frustum with conic sides. The conic frusta are found at the openings of the fallopian tubes, at the outer side of the internal os and external os; and at each of these places the smaller end of the frustum is applied. We also see that the cavity of the uterus is

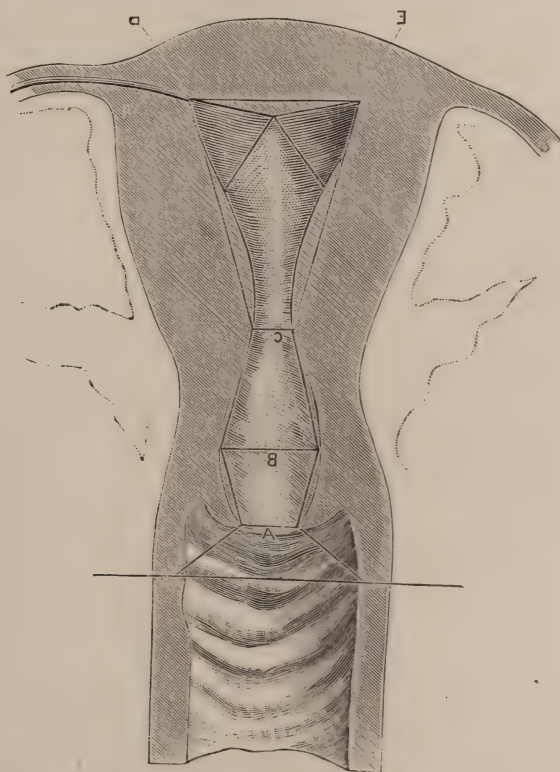


FIG. 1. The straight black lines represent the conic frusta, the small ends applied at the openings, A, C, E, D.

an expanding one, from the inner side of the internal os, up to the fundus. We also see the same arrangement in the cavity of the cervix from the inner side of the external os to about half way up. We also see extending from the outer side of the internal os to the inner side of the external os,

anteriorly and posteriorly in the median line an elevation or ridge, on the surface of which are found lines of depression. Extending from the inner edge of the external os are found other depression or grooves at first parallel with this central ridge, soon separating from it and passing outward. From the few grooves starting from the external os we see other grooves branching off from the original. This grooving results in elevations or ridges. None of these ridges or grooves, save the central ones on the median ridge, reach to or terminate at the outer margin of the internal os. These ridges and grooves, save the central



FIG. 2. A, Grooves or depressions.  
B, Elevations or ridges, taken from the normal.



FIG. 3. A, Cast or mould (Schematic) of uterine and cervical cavities. B, Lateral surface of cervical cavity, showing the form of grooves and ridges.

ones on the median ridge, which start from the posterior wall of the cavity of the cervix, are continued up and outwards to the lateral walls, where they turn down and inwards to return to the same position on the opposite or anterior wall of the cervical cavity. These are the so-called *palmae plicatae*. This arrangement of the endocervical cavity gives us a state of affairs supposed to assist and promote the passage of the spermatozoids toward the cavity of the uterus. The following cuts represent a posterior and lateral view of this arrangement.



With the above before us we are prepared to apply the knowledge given us in the department of hydrodynamics.

By use of Torricelli's theorem we find the velocity of efflux of liquids from containers, as being analogous to the object to which we wish to make the application. Let us take a vessel containing water, make a hole in the bottom, and consider the case of a particle of liquid on the surface. If this particle fell freely it would have a velocity on reaching the orifice equal to that of any other body falling through the distance between the level of the liquid and the orifice. This, from the laws of falling bodies, is  $\sqrt{2gh}$ , in which  $g$  is the acceleration in ft. per second, and  $h$  the height. If the liquid be maintained at the same level, by a supply of water from above, the particles will follow one another with the same velocity. The law is as follows: *The velocity of efflux is the velocity a freely falling body would have on reaching the orifice after having started from a state of rest at the surface.* Thus it will be seen the velocity will depend upon the depth of the orifice from the surface, and further we are taught that with liquids of different density the velocity is the same, provided the liquid is of the same depth, and the orifice of the same size. It also follows that velocities of efflux are directly proportional to square roots of the depth of the orifice.

Water would flow from an orifice 100 inches below the surface with ten times the velocity it would from one inch below.

Understanding the laws governing the velocity of efflux, let us examine the laws of *quantity of efflux*.

If we suppose the bottom of the vessel containing the water to be thin, and the orifice to be a small circle whose area is  $a$ , we would suppose the quantity of water discharged would be represented by the formula  $a\sqrt{2gh}$ , since each particle has on the average a velocity equal to  $\sqrt{2gh}$ , and particles issue from each point in the area in the orifice. But this is by no means true.

In the following figure let A B represent the opening in the bottom of the vessel. Every particle above A B endeavors to pass out of the vessel, and in doing so exerts a pressure on those near it. Those that issue near A and B exert pressure in the

directions  $MM$  and  $NN$ , those near the centre of the orifice in direction  $RO$ , those in the intermediate parts in directions  $PO$  and  $PO$ . In consequence the water within the space  $POP$  is unable to escape and that which does escape, instead of assuming a cylindrical form, at first contracts, and takes the form of a truncated cone. It is found that the escaping jet continues to contract, until at a distance from the orifice about equal to the diameter of the orifice. This part of the jet is called the *vena contracta*.

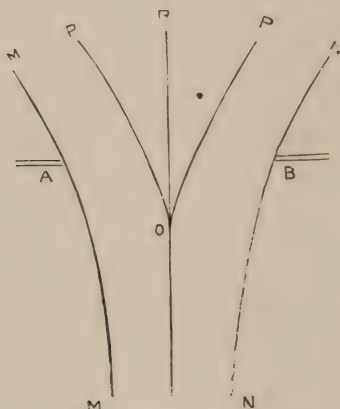


FIG. 4.

It is found that the area of its smallest section is about 0.62 of that of the orifice. The true value of the efflux per second is therefore about  $0.62 a \sqrt{2gh}$ . or about 0.62 of the theoretical amount. This result is in the case of an orifice of a thin wall. If a cylindrical or conical efflux tube or ajutage is fitted to the aperture, the amount of the efflux is materially increased, and in some cases falls but little short of the theoretical amount. A short cylindrical ajutage whose length is two to three times its diameter has been found to increase the efflux per second to about,  $0.82 a \sqrt{2gh}$ . In this case the water on entering the ajutage forms a contracted vein (see fig. 5) just as it would do on entering the air, but afterwards expands, and, in consequence of

the adhesion of the liquid to the tube has on leaving the ajutage a section greater than that of the contracted vein. The contraction of the jet within the ajutage causes a vacuum, as can be readily shown by the contrivance in figure 5. If an aperture is made in the ajutage, near the point of greatest contraction, and is fitted with a vertical tube, the other end of which dips into water, it is found that the water rises in the vertical tube, thus proving the fact.

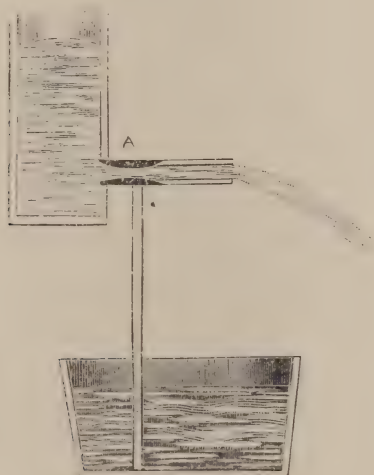


FIG. 5. Vena contracta.

If the ajutage has the form of the conic frustum with the larger end at the aperture, provided the dimensions are properly chosen, the efflux in a second may be raised to  $0.92 a \sqrt{2g h}$ . If the smaller end is at the aperture the efflux may be still further increased and fall very little short of the theoretical amount, in both cases probably dependent on the influence of the vacuum in the ajutage. With the above facts before us what lesson is rationally taught, in the *form* of the unimpregnated uterus, virgin or otherwise. Certainly a very striking one. We see first of all that the arrangement of the conic frusta has a meaning, that is to produce such a condition, that efflux



of liquids is accomplished according to fixed laws, that the operation of these laws is brought to the highest degree of efficiency possible. Every part of conformation is in perfect order for the work to be accomplished. See the sloping converging sides of the cavity to the internal os; thereby obviating the lateral pressure at the aperture seen in square bottomed containers, and concentrating the pressure more nearly in the form of a column of the section of the aperture: the application of the smaller end of the conic frusta to the outer side of the orifice of cavities to be emptied; as at the opening of the Fallopian tubes, cavity of the uterus, and cavity of the cervix. Another advantage gained is the temperature of the liquid to flow out, it being well known that liquids of higher temperature flow with less friction, than those of lower. Another advantage produced by the projection of the cervix into the vagina, is the aspirating effect brought about by the application of the mucous membrane of the vagina to the external os in the movements of the body. The effect can be very readily illustrated by taking a tube of small calibre, closed at one end, filling it with water; now hold it up right and apply the surface of the finger to the lower end, break the contact, and liquid that would not come out, does so, repeat the procedure and the tube can be emptied. The normal position of the cervix is not one of contact against the posterior vaginal wall, but the movements of the body project the cervix against it, and every time contact is made this emptying of the os would be favored.

The above is dependent upon the cohesive property in fluids. All these advantages coupled with the power of expulsion by muscular contraction inherent in the uterus as a whole, blood pressure and gravity, certainly present an arrangement that is perfect. The limits of this paper will estop any extended notice of the advantages and objects of a uterine cervix. I will only mention a few. The observed antagonism existing between the cervix and the body is worthy of attention and only serves to demonstrate the wise provision of two cavities. Opening in a forcible way the external cervix or irritation of the cervical cavity immediately produces a contraction at the body and internal os. This phenomenon is frequently manifest at clumsy

and rough efforts in passing the sound. In some women it is so palpable that a diagnosis of *stenosis* is made. In this antagonism the purpose is manifest.

The cervical cavity is the antechamber, where passengers of all descriptions are examined, and if found obnoxious the effort is made to prevent further advance. What a beautiful arrangement to enter a protest against the rough, unskilled and unnecessary use of the uterine sound. Again the cervix is the fulcrum of support for the entire organ, and he who uses pessaries or supporting tampons should treat it with great consideration.

A study of the muscular structure of the cervix plainly shows the value of an intact cervix in promoting the ability of the body to serve as an erectile organ, and keep intact and in equilibrium the circulation. This fact we have seen established by the after results of incisions, or splitting of the cervical walls, and also in the results following lacerations at labor.

In the mucous membrane is another lesson taught. Observe the richness of power toward growth, and ability and care for the proper inhabitant of the cavity; examine the manner in which these characteristics are lost at the internal os; here we find only mucous tissue in its simplicity, few glands; the membrane intimately adherent to the underlying muscular tissues, smooth, everything tending toward a free exit or inlet as far as this structure is concerned. The same is largely true at the external os. In the cavity of the cervix we see the same perfect arrangement for exit forcible or otherwise, in the peculiar arrangement of the plicæ palmatæ by which a very perfect action of the laws of dynamics is attainable, through the influence of the grooves and ridges all tending to force the contents toward the external os; for inlet only by gentleness and caution. With all this delicate and perfect arrangement for the fulfilling of functions, is it too much to demand of those who present us means of relief in case of disease, a correct and proper remedy? we think not, and for this reason I have seen fit to inflict my thoughts and views upon you this evening.

The principles established by the above résumé, application of facts and phenomena in nature, would seem to be as follows:

1. That the uterus as a whole was designed for special func-

tions, and that all parts of the organ were directly concerned in fulfilling these functions.

2nd. That any injury, destruction or removal of any of its parts in a greater or less degree, must necessarily interfere or prevent its ability to meet its work.

3rd. As a correlation to the above, that all means used to correct any deviations from the normal uniformity, to be correct must have the power of restoring the established order of things.

With the above principles before us we desire to speak of the ruling deviations from the normal that have seemed to those who resort to it, to demand divulsion of the cervix.

1st. Dysmenorrhea. He who has been in the thick of the fight against this condition cannot but be struck with the manifold local conditions that may be present when dysmenorrhea exists. Dysmenorrhea from lesions of the endometrium; from lesions of the cervix; lesions of the Fallopian tubes; lesions of the parenchyma of the uterine body or of the ovary; dysmenorrhea from lesions of the pelvic peritoneum and cellular tissue; dysmenorrhea from lesions of the nervous system and circulatory system; dysmenorrhea from lesions of position, of form, etc.; all of them advanced as cause to effect. What does this multiplicity of apparent causes teach the investigating and truth seeking mind. The inevitable conclusion is that the multiplicity of lesion cannot from the very nature of things natural be cause; but back beyond all of these there exists a vice or vulnerability of which these lesions are only the local expression. Is it conceivable that the internal os or sphincter is this vice? Is it conceivable that *cure*, (mark the word, the Divulsor uses it) can be accomplished by *a simple twist of the wrist*.

I doubt not I will be met by the statement that divulsion is not intended for all these lesions, but only those that are directly due to mechanical conditions such as stenosis, flexures, etc., that all these other conditions are not within the domain of this operation. We accept the objection and will consider the supposed mechanical idea of dysmenorrhea. At this point I wish to present the results obtained as regards quantity of efflux from our appeal to the science of hydrodynamics.



The dimensions of a normal virgin uterus are given by Savage as follows: Depth of cervical cavity  $\frac{1}{2}$  in., of uterine cavity 1 in. Size of aperture at internal os  $\frac{1}{4}$  in., ext. os.  $\frac{1}{4}$  in. With these measurements what quantity of liquid could flow out in 24 hours. Using the formula which we have seen the conformation of the uterus will allow us to adopt, we have it thus  $0.95 \cdot a \sqrt{2gh}$ .

Where  $a$  = area of section or orifice:

$g$  = acceleration in feet per second:

$h$  = height of column:

$0.95$  = percentage of efflux due to form of ajutage.

Now getting our formula into figures and inches we have the following: Area is expressed by  $\pi \times \text{radius}$  raised to second power; formula thus,  $\pi r^2$ ; this equals  $3.1416 \times (\frac{1}{8})^2$ , where the radius is one-eighth or one-half of the diameter of our orifice which is, as we see above, one-fourth inch.

Substituting in our formula  $0.95 a \sqrt{2gh}$ , we have

$$0.95 \times 3.1416 \times \frac{1}{64} \times \sqrt{(2 \times 384 \times 1)};$$

$$\text{this equals} \quad - \quad - \quad \frac{0.95 \times 3.1416 \times 16 \sqrt{3}}{64}$$

Canceling and working out this, equals  $0.95 \times 0.7854 \times 1.73$ , equal to 0.64541 cubic inches per second. This is the quantity of efflux per second in cubic inches. Multiplying this by the fraction  $\frac{1}{2} \frac{60}{31}$ , to give us the ounce of flow per second, we have 0.44703 ounces; multiplying this by 3600, the number of seconds per hour, gives us 1609.31 ounces; multiplying this by 24, the number of hours per day, gives us 38624.4 ounces.

This quantity is the amount that would flow from the cavity of a uterus one inch in depth, with an aperture one-fourth inch in diameter, with a supply just enough to keep it full without any pressure, save that exerted by the liquid in the cavity.

Now let us take a uterine cavity with an aperture of  $\frac{1}{32}$  of an inch in diameter. In this case, using the above formula we will find the quantity will be 603.493 ounces per 24 hours. The above estimates are made for distilled water. With the above result we could take molasses and still get a result that would shoot way over the flow of blood. Now add to the above, if you

want to, but it is not necessary, the influence of blood pressure and the normal muscular action during menstruation, and see what the result would be. The average flow per day in menstruation is from three to five ounces of a liquid, at an elevated temperature with a sp. gr. of 1055. Thus we see in a state of affairs that is rarely met, in which the small wire probe would barely pass, we get 603.493 ounces per twenty-four hours.

When we stop and consider that in dysmenorrhea almost always and especially in the most severe type, the flow is very scanty, the absurdity of mechanical obstruction is apparent.

The mechanical obstruction idea being synonymous with stenosis, and the above examples being in those cases in which the uterine canal is supposed to be normal in direction, let us consider that form in which flexion exists, and is supposed to be the factor in the stenosis. I have here a specimen of an anteflexed uterus that I found in a patient after death from causes not connected with the pelvic organs, and who menstruated in her normal manner a week before death. She was a virgin. It will be seen that the flexion is in the cervix, and that the angling is exceedingly acute; notwithstanding this outward appearance, the uterine canal is not so acutely flexed, but preserves the outlines of a circle. It will also be seen that at the site of the flexure in the posterior wall of the cervix the muscular tissue is relatively thick and normal in texture and appearance. The anterior wall at the flexure, on the contrary, is less than one-third as thick, is changed in structure, atrophied, and in the attempt made to straighten or bend back the flexure, the tissue at this site was ruptured. We see also that the fundus is enlarged and relatively thickened, and the cavity of the body dilated. Blood, clotted, was found in the cavity at the post mortem, but not enough to fill the cavity. It will also be seen that the small uterine probe could be (and was) passed into the cavity. The conditions present in this case are, from the mechanical standpoint, typical for dysmenorrhea, yet this patient at the time she menstruated before death gave no evidence of suffering. The death was sudden from heart disease.

In attributing suffering in dysmenorrhea to stenosis of the cervix, it seems to me with the experience and observation that I

have had, that it will not account for the suffering. The first thing that strikes us is the paroxysmal character of the pain. And where the lesion, which is the immediate cause, is confined to the uterine cavity, this character is more pronounced; here the suffering is not due to stenosis, but to the reflex action, manifest at the sphincters. Owing to the diseased endometrium, the secretions or excretions become so changed that instead of liquids, solids or blood-clots, membranes, etc., are produced, which, in being expelled, or in the attempt at expulsion, pain is produced. A spasmodic reflex action of the sphincters is the consequence, and difficulty and suffering result.

This is to a degree mechanical dysmenorrhea, but not in the sense commonly accepted. There is no stenosis any more than there is stenosis in the rectum when a fissure exists. We see, therefore, that dysmenorrhea may occur in many patients, excited by many local lesions; these lesions, due primarily to a lowered order of nutrition, and that in the vast majority of cases the suffering is brought about by reflex influences; we see that stenosis, as such is, if at all, the cause of an exceedingly limited number of cases of dysmenorrhea. Those of us who have had the opportunity of examining menstruating women during the presence of the flow cannot accept this delusion of stenosis in dysmenorrhea. I have had that privilege, and out of a large number of patients treated in the Female Hospital of this city, I have never met with a case in which I could not, with proper care, succeed in passing a probe or sound. My observation has been that the suffering was due either to an alteration in the character of the discharge, influences produced by lesions in the tissues outside of the cavity, or constitutional hereditary factors. In the days of active cauterization with nitrate of silver, nitric acid, etc., I have no doubt many cases of stenosis were met, and maybe this accounts for the large number of cases of stenosis in the East; but in these latter days, unless our patient gives a history of such mutilation, we should accept with hesitation such a diagnosis. The very fact that the divulsionist succeeds in entering his dilator into the cervical canal, is proof positive that an opening exists.

These objections could be still further enlarged upon, and



many others could be advanced, tending to establish the above position, but time and space do not permit.

Now for a more direct consideration of the operation itself. And in this connection I wish to consider the operation

1. From a surgical standpoint.
2. The manner in which it is performed, and results obtained.
3. Its field of usefulness or right, if any.

The fundamental principle of surgery is, and should be, to remove that which offends with a minimum of risk and damage present or future. If we consider divulsion from this standpoint, we find that it removes nothing, but will, in the vast majority of cases, result in damage which in the future may become the source of trouble. The risk involved is dependent upon the degree of dilatation and the local conditions for which it is used. The result, therefore, as will be seen further on, is the removal of nothing that offends and leaves that which is not normal, but abnormal. Hence it is unsurgical.

The manner in which the operation is performed is worthy of note. We see by reference to the following abstract from Dr. Wathen's paper that he considers it necessary to have three sizes of dilators.

"It is best to put the woman on her back and use a large bivalve speculum, but a Sims' speculum may be used with the woman on her left side. I never begin the operation without three dilators of different sizes, but it may not be necessary to use but two of them. I hold the cervix firmly with this little tenaculum and use the smallest instrument to prepare the way for the larger ones; possibly the intermediate size may be first used, or the smallest may dilate enough to admit the largest dilator."

Thus the smallest instrument is used first, if the medium cannot be entered. The admission is also made that the medium can be first used in some cases, all of this demonstrating the fact that an opening exists in the cases in which he applies the remedy. The statement is made that no hesitation is made in office practice in dilating, without chloroform, to the extent of from one-third to one-half inch, and allowing his patient to go home. To one who has had any experience in this operation, it cannot but strike him that there is nothing remarkable in this, and that

practically *nothing*, absolutely nothing has been done, but give the patient some pretty severe pain, and make the mental impression that the doctor has done something. They call it "He operated on me." As a matter of self protection, the doctor himself must call it an operation.

Now, as a matter of fact, while there has been dilatation, and it has been rapid—the result gained is not what is represented. Outside of the pain and contusion of the mucous membrane at the sphincters, the power of the muscle, its integrity and action, have not been influenced beyond the physiological degree. If these gentlemen will take the trouble to, in a few hours, irritate the cervical cavity or os, they can demonstrate the contraction of the internal sphincter. It is only proper to remark here that one-third or one-half inch marked on the scale does not mean, with any dilator that could be used, one-third or one-half inch opening of the sphincter. We see, therefore, the majority of operations are no operations at all, but simply a physiological exercise of the internal sphincter in reverse order.

From the obstructive standpoint, one of two propositions must prevail. Either there must be stenosis of a fixed character or constant spasmodic action. In order to overcome this, the divulsionist must produce solution of continuity, and thereby leave a state of paralysis. From the specimen presented here to-night we can readily see what solution of continuity means : from the very nature of the conditions present in long standing flexions, the atrophied part must yield and rupture of the uterine wall is the result. Our experience in solution of continuity in sphincters teaches us that it is only a question of time, when the period of contraction sets in, the degree of which is directly dependent upon the degree of solution. Paralyze a sphincter you cannot, unless there is solution of continuity.

We see, therefore, the conclusion to our second proposition is that it is not only unsurgical, but the results are pernicious.

In reply to our third proposition, the reply can be brief. Divulsion of the cervix in dysmenorrhea, stenosis or sterility, is only allowable to the extent of a physiological exercise of the internal sphincter ; beyond this it must not pass ; within

this limit good work can be done and really is done, for the simple reason the operator is within the domain of the truth. The truth is always beneficial. In conclusion we offer the following:

1. That we see manifest in the form, structure and surroundings of the uterus, as a whole conformity with a uniform order of things.

2. That this design is adapted to produce the greatest degree of efficiency attainable.

3. That each and every part and relation of the organ is necessary, that this efficiency be preserved.

4. That any means applied for relief which does not restore the natural order of things is not correct, in principle or practice.

5. That dysmenorrhea from mechanical causes or stenosis is found only in the small minority of cases, if at all.

6. That the operation of divulsion of the cervix can find no place in scientific medicine.

7. That it is unsurgical.

8. That the results tend to the pernicious.

9. That it is *allowable, only* when confined within the physiological limits of the tissue acted upon.

10. That the injunction of the divulsionist to his patient must be, Go thy way, rejoice *now*, for ye know not the day nor the hour when suffering and sorrow may attack you ; we prefer to have it thus.

Go thy way ; *sin* no more and be whole.

3026 Pine Street.

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HEREDITARY SYPHILIS AND RICKETS IN BRAZIL.—Dr. Moncorvo says that in an extensive practice in Rio de Janeiro, and the province of that name, he believed that hereditary syphilis furnishes sixty per cent of the cases of infantile disease. It is the most important factor of infant morality, either directly or by the severity which it imparts to the disease of the children, and rickets makes its appearance in forty-five per cent of the children that come under his observation. This does not accord with the opinion of Dr. Charles West, who stated in the Congress of 1881 that while syphilis was common in Brazil, rickets was unknown.



## EDITORIAL.

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### ALVELOZ IN THE TREATMENT OF CANCER.

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In an editorial in the June COURIER, on Cancer of the Uterus, mention is made of the fact that Dr. J. E. Janvrin has been experimenting with a Brazilian plant called alveloz in the treatment of cancer. The *Annals of Gynecology* for October contains a paper from the pen of this gentleman with regard to this remedy, from which we gather the following, which we believe will interest our readers.

A patient who was suffering from carcinoma of the breast in an advanced stage called Dr. Janvrin's attention to this remedy having heard of it through her son-in-law, a druggist by profession, through whom Dr. Janvrin learned further particulars and obtained a copy of the U. S. Consular Reports for October 1884.

In this Consul Atherton quotes at some length from a letter received from Dr. R. Bandeiro, Surgeon at the Pedro II Hospital, Pernambuco.

He says that one Dr. Guennes was the first to make known the remedy, having had personal experience of its efficacy. He was perfectly cured of a cancrroid of the face by the natives of the country by the use of this plant and its juices, after a number of physicians had failed to benefit him. He sent specimens of the drug which had had such a happy effect in his own case to physicians, who tested it further in the Hospital Pedro II, and with most gratifying success. In epithelioma of the lips, nose, face, and eyelids, it has been used in a considerable number of cases. In ulcerated cancer (sarcoma or carcinoma) "its application has not been as favorable as had been hoped.

The plant is one of the Euphorbiaciæ, and was first described by Müller in *Martin's Flora Braziliensis* in 1875 under the name *Euphorbia Heterodoxa*. It grows spontaneously in the whole of the north of Brazil, and is known under several different names, the most common being alveloz, arveloz or aveloz.

Dr Janvrin has used two different preparation of alveloz, viz., "milk of alveloz concentrated" and a "special formula," the latter of which, he says is evidently largely diluted with vaseline and, is not strong enough to be of much service in treating genuine cancerous growths. He has procured his supply from John T. Kirby, Importer, No. 16 Beaver St., New York. He prefers the "concentrated" preparation.

In a considerable number of cases of cancer of the uterus Dr. Janvrin has applied the alveloz with the effect of diminishing to a marked degree the amount of discharge, and rendering it less offensive.

He prefers this to any other escharotic in cases of epithelioma of the cervix that are not far advanced and in which for any reason it is decided not to extirpate either the cervix or the entire uterus.

In cases, also, where the disease is so far advanced that any other operation than curetting is contraindicated, the application of alveloz once or twice a week has proved very effective in diminishing pain (after the immediate pain caused by the application has ceased) and in decreasing the quantity and offensiveness of the discharges, prolonging the life of the patient, and relieving materially the discomfort both of the patient and of those in constant attendance upon her.

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#### TREATMENT OF MALIGNANT PUSTULE.

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Sereins, in *L'Union Médical*, Oct. 4, remarks that extirpation of malignant pustule and then the actual or potential cautery have been successively advocated in the medication of charbon. Extirpation has long since lost its claim, and a like fate is reserved for

cauterization. By these two modes of treatment we suppress, it is true, the centre of infection, but it is often only at the cost of great destruction and lesions of important organs, if we go to the limits of the disease. Now even if these two operations are sufficient when the affection is in its commencement, they are absolutely useless when there is infection of the whole organism. In view of these considerations he refrains from all forms of cauterization and relies exclusively upon the interstitial injection of tincture of iodine.

He then records two cases treated in this manner with satisfactory results.

By this mode of treatment, instead of the enormous loss of tissue with the distorting and disfiguring eschars which would have followed the use of the cauterium, he succeeded in effecting a cure of the disease with practically no loss of substance, the eschar which separates corresponding in extent and depth to that of the initial pustule, and the wound to which it gives place corresponding without too great disadvantage to that of the syphilitic chancre, for the scar of which it is necessary to seek after cure.

In answer to the question whether this treatment affords satisfactory assurance of curing the disease as well as of avoiding deformity he asserts that clinical experience answers affirmatively.

Considering the nature of charbon he remarks that Davaine and Pasteur have shown that the infectious element of charbon consists in a bacterium multiplying especially by spores. Inoculation of a bacterium at a point denuded of skin produces the initial lesion designated as malignant pustule: this bacterium multiplying forms in a little time an invading colony which gives rise to a circumferential edema. The lymphatic and blood vessels serve as ways of communication to pass from the original centre and diffuse through all the organism. The charbon bacteria being aerobic, they absorb oxygen from the tissues whence the production of gangrenous edema, and once entered into the circulation, they reduce the hemoglobin of the blood by deoxygenating it, whence the



peculiar appearance of the blood which has been noted, the phenomena of asphyxia which characterize the period of intoxication and the apyretic nature of the affection.

The indication to fill then, consequently, is the following: to destroy the bacteria not only at the seat of the infecting centre, but wherever they have penetrated. The injections of iodine in and around the edema wonderfully fill this double aim. Davaine has proven that charbonous blood loses its virulence in the presence of iodine. Iodine, then, is a poison for bacteria and injected as a liquid, it has the power of diffusing through all the organism, following precisely the same course as the charbon bacteria have penetrated. To attain a good result it is necessary to employ a strong solution. The injections are made into an insensitive tissue: the pain felt by the patient is next to nothing, and we are more sure in this way to fully impregnate the tissues.

Moreover charbon is in its nature non-inflammatory, a condition eminently favorable to the multiplication of bacteria.

An iodized solution sufficiently concentrated provokes in the infected tissues at a subnormal temperature an inflammatory reaction which has for a result an elevation of temperature. As Pasteur rendered chickens susceptible to charbon by chilling them, a strong iodine solution destroys the charbon which has infected an organ in elevating its temperature.

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## FLIES AS CARRIERS OF CONTAGION.

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In *L'Union Médicale*, September 24, is an article of considerable interest, by M. Longuet, with reference to a little studied method of transmitting infectious diseases.

MM. Spillmann and Haushalter, in a communication to the Academy of Sciences, have recently called attention to the role of flies in disseminating the bacilli of tuberculosis, and in the propagation of this disease. The intestinal contents and the excreta of

flies that have fed upon the sputa of a tuberculous patient, contain tubercle bacilli in great numbers. It is the same with the more or less ancient excreta of flies upon the windows or walls of a hospital ward. The walls and ceilings of our rooms, our furniture and upholstery bears the marks of such soiling which even our food does not escape; the insect itself, whose life is brief and precarious, leaves its dead body, which is dried and pulverized, and sets at liberty new germs. When we recall the resistance of bacilli to desiccation, to putrefaction, we may believe that their vitality has little to suffer in these different changes. This point is one upon which inoculation experiments alone will give full certainty. We ought at least for the present to apply the rules of elementary precaution, to place the sputa and in general the secretions of tuberculous patients, out of the reach of these subtle agents of transmission.

M. Longuet remarks that these facts observed by MM. Spillmann and Haushalter are only another illustration of one long recognized with reference to the role of insects as carriers of contagion in general. In 1883 Grassi, having placed on a plate in his laboratory some eggs of *tricocephalus*, found them in his kitchen located on the other side of a court yard, on the food, on some white paper, and, what left no doubt as to the mode of transfer, in the excrement of flies and in their intestines. He succeeded, moreover, in causing to be absorbed by flies, *tenia* eggs, *lycopodium* powder, blood-cells of a frog, and mould from milk, which he found a little later intact in their intestine. Now, he adds, there is little probability that these elements lose their vitality in this transmission.

As evidence that the appreciation of this role of flies as carriers of contagion is no new thing, the editor refers to the fact that they have long been recognized as the agents by which purulent ophthalmia is transferred from one to another member of a family in the miserable Arabian hovels, and that the same observation was made by physicians in Egypt. In 1885, in the instructions issued by the war ministers of England to the troops which were to take

part in the Suakim expedition, we read that "Egyptian ophthalmia is a malady attributable to uncleanness and to flies." And further these recommendations, in view of the danger from flies as carriers of contagion in general, say: "Wounds should be protected against flies by an infusion of quassia, by a weak solution of creasote, by the application of a piece of lint soaked in turpentine, or by camphor sprinkled upon the dressing."

suggested that a wise measure in times of epidemic would be to place out of reach of these insects contaminated articles, as it is a vain thing to think of destroying the insects themselves. MM. Spillmann and Haushalter suggest for the prophylaxis of tuberculosis that the sputa cups should be of glass or porcelain and provided with covers, and that the sputa be sterilized by hot water or by a five per cent solution of carbolic acid.

Koch recognizes the possibility of insects serving to transfer the contagion of cholera, and this is confirmed by the fact noted by many observers of the presence of flies in unusual numbers during cholera epidemics.

Facts could be multiplied to show that germs of infection may be transported by insects in many ways.

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### GLEDITSCHINE, OR STENOCARPINE.

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In our issue of two months ago we published quite a full account of a local anesthetic said to have been discovered in the leaves of a tree growing in Louisiana which has since been recognized as the thorny locust, or *gleditschia triacanthos*. There were several series of experiments upon animals and men which seemed to indicate that the new drug was a valuable addition to our therapeutic resources. Evidences are accumulating now to show that the profession have been made the subject of a most atrocious fraud, and that the two per cent solution of *gleditschine*, the only prepa-



ration of the drug which could be obtained, is a solution of cocaine and atropine, or some other of the mydriatic group.

In the *Medical News*, Oct. 29, Dr. John Marshall relates the results of experiments made in the laboratories of the Medical Department of the University of Pennsylvania. Experiments in the physiological laboratory with the manometer, gave such characteristic tracings as are ordinarily produced by atropine; and it was determined at once to make some chemical tests to ascertain the constituents of the solution. Such tests gave the reactions which indicate the presence of cocaine and of some member of the atropine group of alkaloids.

In the *Medical Age*, Oct. 25, is a communication from Messrs. Parke, Davis & Co., with reference to the same subject. They first procured some of the leaves of the *gleditschia triacanthos*, and were able to obtain from them only an infinitesimal quantity of alkaloid, and this was destitute of any such qualities as has been attributed to it. They were then referred to Lehn and Fink, of New York, who were said by Dr. Seward to be the only pharmacists from whom the solution of the alkaloid could be obtained, and procured a bottle of the solution which, on analysis, disclosed 6 per cent cocaine and a sulphate of a salt which, it is probable, further investigation will prove to be atropine.

From all this it appears that the medical profession has been made the victim of an outrageous fraud for the simple purpose of financial profit.

It should be stated, however, that Dr. Claiborne, who first experimented with the solution of *gleditschine* has written a letter to the *N. Y. Med. Record* containing a proposition from Mr. Goodman to submit specimens of the leaves to a committee consisting of a botanist and chemist, who shall determine whether or not the leaves are from the *gleditschia triacanthos*, and if not, of what tree they are the leaves. The chemist shall bring chemicals to be designated by Mr. Goodman or Dr. Seward, and make a solution under their direction, and then test the anesthetic and mydriatic action of the

solution on a human being or lower animal. If cocaine or any mydriatic is used in preparing the solution, they are to say so; if not, they are to state that fact, but are to give their word of honor not to reveal further than that the method of preparing the solution.

Drs. Geo. F. Shrady and Frank P. Foster, editors respectively of the *Medical Record* and *N. Y. Med. Journal* have consented to act as such committee, and we may expect soon to have an authoritative decision in regard to the truth of the matter.

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PRIZE ESSAY.—*The Pharmaceutical Era*, of Detroit, Mich., offers a prize of fifty dollars in gold for the best essay on

#### THE MUTUAL RELATIONS OF PHYSICIAN AND PHARMACIST.

The essay should endeavor to show how the ideal harmonious relations between physicians and pharmacists, both as individuals and as represented in their respective organizations, may be best realized, and all competitors must be governed by the following conditions.

1. Any one interested in the subject may compete.
2. The essay must not exceed 2,000 words in length and must reach us previous to January 1st, 1888.
3. The MSS. must be free from the author's name, address, or other marks of identification, and we recommend typewriter copy wherever practicable.
4. The author's name and address must be enclosed with the manuscript on separate paper.
5. All the essays submitted in competition for the prize to be the property of the *Pharmaceutical Era*, and to be published or not at the discretion of the editor, but names of authors will be suppressed if requested.
6. A committee consisting of five representative men chosen from the medical and pharmaceutical professions, to whom the essays shall be submitted anonymously, shall award the prize, and the names of the committee will be announced with their decision.

## BOOK REVIEWS AND NOTICES.

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A SYSTEM OF GYNECOLOGY BY AMERICAN AUTHORS. Edited by MATTHEW D. MANN, M. D., etc. Vol. I. Philadelphia, Lea Brothers & Co., 1887. 8vo.; pp. 789, cloth or sheep.

This first volume of the System of Gynecology which was promised some months ago has been received with interest as being the first attempt to subdivide one of the specialties of medical science, among a number of different authors, and bring together such a group of monographs into a complete system.

The editor is to be congratulated upon the success attending his effort, as evidenced in this first volume.

The extent of the work has rendered it practicable for the several authors to treat their subjects quite exhaustively, and while the work is strictly that of American authors, it is to be remarked that they have availed themselves freely of the studies and observations of foreign gynecologists.

The first paper in the volume is a "Historical Sketch of American Gynecologists," by Dr. E. W. Jenks, giving many valuable details concerning the development of this specialty, its most prominent workers and the organizations which have conducted to its rapid advancement.

Dr. Henry J. Garrigues contributes two papers, viz., "The Development of the Female Genitals," and "Malformations of the Female Genitals," while "The Anatomy of the Female Pelvic Organs" is written by Dr. Henry C. Coe. He includes in his description the anatomy of the urinary organs and rectum, as being contained in the pelvis, and, at the same time, being so intimately connected with the genital organs as to both affect and be affected by their disorders.

Dr. E. H. Grandin, in his article on "Gynecological Diagnosis," gives a clear and full view of the subject. Dr. E. C. Dudley contributes a paper entitled "General Consideration of Gynecological Surgery." Dr. A. J. C. Skene, in the article entitled "General



Therapeutics," dwells upon the importance of general treatment, even in the diseases that are strictly peculiar to women. Dr. A. D. Rockwell writes on "Electricity in Gynecology," giving well merited credit to Apostoli, of France, and Engelmann, of our own city, for the advances which they have made in the application of this agent, and showing the wide range of therapeutic action of the different electric currents.

The chapter on "Menstruation" is from the pen<sup>of</sup> Dr. W. Gill Wylie, and that on "Sterility" is by Dr. Reeves Jackson. The editor, himself, Dr. Mann, contributes an exhaustive article on "Diseases of the Vulva."

Dr. C. D. Palmer has given a thorough and able consideration of the "Inflammatory Affections of the Uterus," and Dr. T. A. Reamy has written on "Subinvolution of the Vagina and Uterus." Dr. R. B. Maury prepared the article on "Peri-uterine Inflammation;" and the concluding paper, on "Pelvic Hematocele and Hematomata," is by Dr. Ely Van de Warker.

DISEASES OF THE FEMALE URETHRA AND BLADDER. By F. WINCKEL, M. D., of the Royal University of Munich; and DISEASES OF THE VAGINA, by A. BREISKY, M. D., of the Royal University, Vienna. Edited by EGBERT H. GRANDIN, M. D., of New York. These two treatises constitute Vol. X of a "Cyclopedia of Obstetrics and Gynecology" (12 vols., price, \$16.50), issued monthly during 1887. New York, Wm. Wood & Company.

This volume is one of great value, the only other monograph on diseases of the urethra and bladder being that of Dr. A. J. C. Skene, of our own country.

Both these treatises are full and exhaustive. The authors have done full justice to their subjects, and the translators have given fully and well the spirit and thought of the original.

The first seems to us more fully satisfactory than the latter.

It must be said, however, that there are evidences of carelessness in revising the proof-sheets which greatly mar the satisfaction of reading the book. This is specially noticeable in the inaccurate spelling of proper names and of Latin words. Other inaccuracies noted are such as the following: the word "urethral," where it is evident that "ureteral" is intended, as on page 17, line 4, and in other places, "necrosis," instead of "nephrosis, etc."

Nor are we disposed to admit the validity of the claim (p. 95, 96) that the credit of devising the speculum known as Sims' specu-

lum, should be taken from the eminent American and given to von Metzger. Though it be granted that the latter described in 1846 a speculum that corresponds in all essential particulars to that afterwards devised by Sims, it remains undeniable that to Dr. Sims' enthusiastic and successful work and teaching is due the immense advance made in the treatment of uterine diseases, and that much of this work would have been utterly impracticable without the speculum. Further, there is no reason to suppose that Dr. Sims had ever seen or heard of v. Metzger, or the instrument which he devised, at the time when he presented to the profession the instrument which he himself devised.

While we unite in giving honor and credit to the German for the ingenuity of his device, and for his appreciation of a necessity for its use in treating uterine disease, we cannot admit that to him is due the credit of the advance made, as for years his description was as effectually buried among the leaves of a comparatively little read German medical journal, as was the speculum in the ruins of Herculaneum, a model of which was shown to the several medical societies of our city by Dr. Maughs last spring.

Still further it was not till Sims' speculum was known and used the world over, wherever modern gynecology attempted to relieve the ills peculiar to woman that v. Metzger's description was exhumed from its unfortunate oblivion.

We cannot refrain from renewing our protest against the use, in a work which should be thoroughly classical, of that barbarous word "micturate" and "micturating," instead of "urinate" and "urinating."

In spite of these blemishes the book is a valuable number of the "Encyclopedia of Obstetrics and Gynecology."

AUTOBIOGRAPHY OF SAMUEL D. GROSS, M. D., etc., with sketches of his contemporaries; edited by his sons, in two volumes. Philadelphia: Geo. Barrie, 1887, 8vo., Vol. I., pp. 407; Vol. II., pp. 433; cloth.

To write an excellent autobiography is by no means an easy task. There are not many men whose lives afford enough of general interest to make it worth while for them to publish a record of their personal experiences and observations, nor for others to read such a record, if prepared.

In the volume before us there is a good deal to interest in the record of the life itself and in the reminiscences of the prominent

men with whom the author was thrown into more or less intimate relations in the various places where he resided, or when he was abroad; and to the great number of graduates of Jefferson Medical College who, during the years in which Dr. Gross filled the chair of surgery there, came under his tuition, there will be a special interest in the record of the life of the eminent surgeon and instructor.

Yet we must confess to laying down the volume with a feeling of relief that its perusal was accomplished, and a hope that not many of his confrères will feel moved to imitate the author's example in this regard.

The volumes themselves are elegant specimens of the book-maker's art.

OUTLINES OF THE PATHOLOGY AND TREATMENT OF SYPHILIS AND ALLIED VENEREAL DISEASES. By H. VON ZEISSL, M. D., late Professor in the Imperial Royal University of Vienna. Second edition, revised by M. VON ZEISSL, M. D. Translated with notes by H. RAPHAEL, M. D. N. Y., D. Appleton & Co., 1886; 8vo.; pp. 402; cloth, \$4.00.

This well-known work on the venereal diseases, which has long enjoyed a deservedly high reputation in Europe, and especially in Germany, has, since the death of its distinguished author, been thoroughly revised by his son, Dr. Maximilian Zeissl, and now is presented to the American profession in an acceptable translation at the hands of Dr. Raphael, of New York. Prof. Zeissl's views on the nature of syphilis, and his peculiar ideas on the treatment of the disease are too well known to need reproduction. It may be interesting to state, however, that we do not find here an unreserved acceptance of the parasitic theory of gonorrhea. On page 15 it is declared that "the hypothesis that an animal or a vegetable parasite (Neisser's gonococcus) forms the basis of a gonorrheal contagion has not yet been satisfactorily demonstrated." We are very glad to have this book in English dress, for it makes accessible to the general reader the outcome of a vast experience, and the practical way in which this experience is made available, will be found of great benefit to the practitioner.

W. A. H.

A PRACTICAL TREATISE ON THE DISEASES OF THE HAIR AND SCALP. By GEORGE THOMAS JACKSON, M. D., Lecturer on Dermatology in the New York Polyclinic, etc., New York. E. B. Treat & Co., 1887, 8vo., pp. 356, cloth, \$2.75.

Notwithstanding the unusually large number of books and spe-



cial articles on the diseases of the hair and scalp, we have long been in need of some convenient work, written from a scientific standpoint, that would present in moderate compass the recent advances in this department of dermatology. This want has been very fully and satisfactorily supplied by the volume before us. We have examined it very carefully, and find that Dr. Jackson has labored conscientiously to gather up all that has been written on this subject by the best authorities, and at the same time he clearly shows that his own experience has been wide and valuable. The table of contents reads as follows:

Part I. "General Considerations," under which title are to be found well illustrated chapters on the anatomy and physiology of the hair, and an especially good section devoted to the hygiene of the hair and scalp.

Part II. is concerned with the "Essential Diseases of the Hair," such for example as alopecia, sycosis, hirsuties, canities, etc.

In part II. we find a full consideration of the "Parasitic Affections," and in part III, the author treats of those "Diseases of the Hair, Secondary to Diseases of the Skin," viz., dandruff, eczema, syphilis, etc. The exhaustive bibliography is particularly to be commended. There is also a good index.

W. A. H.

**DRUG ERUPTIONS.** A Clinical Study of the Irritant Effects of Drugs upon the Skin. By PRINCE A. MORROW, A. M., M. D., Clinical Professor of Venereal Diseases; Consulting Surgeon to the Bellevue Out-door Department, etc. 8vo. 206 pages, one lithographed plate, extra muslin. Price, \$1.75. New York, Wm. Wood & Co.

In this very valuable work the author's object, as stated in the preface, has been to collect from all available sources well authenticated observations relating to any form of cutaneous disorder thus far recorded from the action of drugs. In this undertaking he has most admirably succeeded, and the general practitioner and the specialist in dermatology alike will find here a veritable store-house of facts, that will prove of great practical help. It is only within the past few years that this subject has received much attention, and hitherto the communications bearing upon it have been practically hidden away from the great body of the profession in special journals or treatises. Therefore we are only too glad to call attention to the result of Dr. Morrow's conscientious and painstaking labors, and earnestly recommend its careful reading. In fact, this work and the recent volume of White on dermatitis venenata should always be in easy reach of every practising physician.

W. A. H.

## REPORTS ON PROGRESS.

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### SURGERY.

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*Vesical Calculi.*—DR. GEO. E. POST said in the Section of Surgery at the Int. Med. Congress, that the largest number of calculi he had ever removed from one patient was two hundred, of various sizes, but eleven of them weighed six ounces each. The patient died from double pneumonia three days after. The speaker stated that he had operated in 250 cases of stone in the bladder. The mortality was 10 in 176 cases. One hundred and six cases were in children ten years of age and under. He had performed 44 lithotomies, 8 of which died. One patient, a man seventy years of age, came under the writer's care from whom he removed three stones from the urethra—one from the membranous portion; one, three inches from the meatus; and one from just inside the meatus—the largest was the size of a bean. Going from extreme age comes that of a child, not quite two years of age, from whom the writer had removed a stone the size of a bean.

DR. J. A. S. GRANT (Bey,) of Egypt, remarked that calculus is very common there also; a friend of his, Dr. Zacharol, had made careful and scientific examinations of the various calculi, and almost invariably found the nucleus to be the egg of *Bilharzia hematobia*, which, he suggests, would account for the stone.

A patient came to the speaker's office one morning with his scrotum extremely inflamed, and about the size of a child's head. The man—a native—while sitting near the railroad track had been struck on the scrotum by a bottle thrown from the hands of a soldier in the train that was passing; the blow had laid open the scrotum. The speaker removed the stone, which weighed fourteen ounces. This was the largest he had ever removed, and this was taken away in three pieces.

DR. R. T. MORRIS, of New York, asked which species of *Bilhar-*

zia was found, and also in how many cases the blood-worms were found.

DR. GRANT replied first, Bilharzia hematobia was in almost every case as examined by Dr. Zacharol.

DR. POST remarked he hardly thought Bilharzia could be a cause as, while Bilharzia was very rare in Syria, calculi were very common.

*Treatment of Felon without Incision.*—DR. L. DUNCAN BULKLEY reports his mode of treating felons without incision, his practice being radically different from that ordinarily taught in the schools.

He adopts general and local measures aiming to check the inflammatory and suppurative process, rather than to encourage it as is ordinarily done by poultices.

Finding that patients even with a beginning felon are commonly in a state of lowered vitality with more or less of sluggishness of the digestive organs, a coated tongue, loss of appetite, etc., unless it is otherwise contraindicated, he generally commences treatment with a mild cathartic, commonly employing the following pill :

R̄	Ext. colocynth. co.,	
	Mass. hydrarg,	aa gr. x.
	Pulv. ipecac.,	gr. ij. M.

Div. in pill no. iv. Sig. Take two at night and two on the second night after.

He also gives a tonic from the commencement usually one containing iron and, in most cases, that combination known as Startin's mixture, the proportions being altered to suit the cases.

R̄	Magnesiæ sulphatis,	3i.
	Ferri sulphatis,	3i.
	Acidi sulphurici dil.,	3iv.
	Syr. zingib,	3i.
	Aquæ q. s. ad.,	3iv. M

Sig. Teaspoonful in water after eating.

He administers calcium sulphide in quarter grain gelatin coated pills one every two hours during the whole treatment. As this drug is so readily converted into the inert sulphate on exposure to the air, it cannot well be dispensed in powders or tablets or in extemporaneous pills. It is well to test even the gelatin coated pills by biting, when the characteristic odor of the sulphuretted hydrogen is at once apparent if the article is good.



Alcohol must be interdicted and malt liquors are also harmful. The diet should be full and nourishing, but Dr. Bulkley discourages the use of milk with other food at meal times, recommending, however, that it be taken alone in the interval between meals and not within a half hour of the medicine or any other ingesta.

The local treatment which he uses consists simply in the constant and thorough envelopment of the affected part in a protective ointment, from the commencement to the end of the treatment.

He uses the diachylon ointment which he is very particular to have made according to Hebra's original formula, which is as follows :

R	Olei olivarum optimi,	-	-	-	-	℥xv.
	Plumbi oxidi,	-	-	-	-	℥iij. ʒvj.
	Olei lavandulæ,	-	-	-	-	ʒij.

M. Add the oil to two pounds of water, and heat it with constant stirring; the litharge is to be slowly sifted in while it is well stirred, fresh water being added as required. The ointment is to be stirred until cold and the oil of lavender then added. In winter a slightly larger quantity of oil is required to make soft ointment.

When properly made this ointment is soft and unctuous and not very sticky. This is to be spread very thickly upon the wooly side of lint, even a quarter inch or more in thickness, so as to completely envelop the end of the finger in a thick mass of the ointment. This is lightly bound on and left undisturbed as much as possible. He generally has the application renewed twice a day, and if there is no discharge, the same dressing may have fresh ointment spread upon it and be immediately replaced. The affected part should not be handled at all, nor even the ointment be scraped off, but it should be kept continuously in the mass of bland, protective absorbent ointment, so as to allow the inflammation to subside.

The application is extremely soothing and pleasant, often relieving the pain almost immediately, though sometimes more slowly.

Some suppuration generally takes place under this treatment, superficial or deep according to the point where the inflammation commenced or the extent to which it had advanced when treatment commenced. Even in a few cases under his care in which small spiculæ of bone have been discharged, still no deep incision has been necessary. After the opening, either spontaneous or painlessly made through dead epidermis, the ointment is still to be

continued; the dressing being renewed more frequently if there is much discharge, until finally the openings close and the parts resume a normal condition.—*Jour. of Am. Med. Assoc.* July 30.

*Abortive Treatment of Furuncles.*—DR. LOUIS HEITZMANN fully accepting the view that furuncles are always due to the action of micro-organisms, has adopted the practice of treating them by the local application of salicylic acid. The first patient upon whom he tried this method was a young man, who for three weeks previously had suffered from a large number of boils of different sizes at the back of the neck. In spite of numerous incisions, new nodules appeared as soon as others were cured. The man suffered such pains that he was unable to sleep, and he could not turn his head in the slightest degree without most severe pains. When he first came under Dr. H.'s care he had about a dozen larger and smaller elevated, indurated, inflammatory nodules on the left side on the back of his neck. An eight per cent. salicylic acid plaster was ordered as follows:

R	Acidi salicylici,	-	-	-	-	-	-	-	3ij.
	Empl. saponat.,	-	-	-	-	-	-	-	3ij.
	Empl. diachyli,	-	-	-	-	-	-	-	3j. M

Three days later the pains had disappeared, he could move his head in every direction and only a few superficial nodules remained; and in another three days he was well.

Having tried the treatment in a considerable number of cases Dr. H. is much pleased with the results obtained. It is a matter of indifference whether the salicylic acid is used in the form of plaster or salve. He prefers the officinal unguentum aquæ rosæ to vaseline as a base when a salve is to be used. Another pleasant and effective mode of using the salicylic acid, is in the form of the ten per cent. mull first introduced by Unna.—*Med. Rec.* Aug. 6.

*Amputation for Injury of Living parts never Necessary.*—DR. ELISHA H. GREGORY, of St. Louis, Mo., read a paper upon this subject, before the Section on Military and Naval Surgery and Medicine of the Int. Med. Congress. The author mainly described improved methods of coaptating deep structures, and the prevention of wound accidents and complications. He advises that, if by peculiarity of the injury the main channels are cut off, the surgeon should wait for collateral circulation, because the injury is not general.

*Alcohol as an Anesthetic.*—DR. LINK, of Indianapolis, has used it in over a hundred cases and never had a fatal result, while the anesthesia was complete. The whiskey is to be given in two-ounce doses, every two to five minutes, until a pint to one and a half pint has been taken and the patient becomes stupefied. Then about two drams of chloroform is placed in the cone, and a few respirations put him to sleep. The speaker's reason for using this method was that in cases of shock there is depression; the alcohol increases the heart's action, while chloroform, which is a depressant administered as stated, secures the equilibrium of the heart's action.

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## MEDICINE.

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*Carbolic Acid as an Antipyretic.*—H. A. HARE concludes as a result of experiments upon animals that

1. Carbolic acid possesses considerable power in lowering normal bodily temperatures.

2. It possesses more influence over pyretic temperature than does salicylic acid, generally preventing a rise or causing a fall of temperature, but sometimes failing to do so.

3. Carbolic acid probably decreases arterial temperature when lowering temperature.

4. That its mode of decreasing normal bodily temperature is as yet not fully understood, although it would seem probable that it acts on both heat functions.

5. When influencing bodily heat in fever it acts chiefly by decreasing production, although it affects both functions.—*Therap. Gaz.*, Aug. 1887.

*The Etiology and Treatment of Camp Dysentery and Diarrhea.*—DR. CHARLES W. BUVINGER, of Pittsburgh, Pa., read in the Section on Military and Naval Surgery and Medicine, a paper on this subject. These diseases are always the result of a radical change in the manner of living; by the use of bad water from stagnant pools or wells contaminated with organic matters. The use of improperly cooked food, and privations, were important factors. The speaker adverted to the influence of malarial or paludal neighborhoods and to that of scurvy in their causation.

The nature of these diseases is not well understood. They are



not due to a micro-organism, bacteria, or special bacillus, so far as known; in spite of numerous researches, we are still in the dark as regards their origin.

The history of the treatment of dysentery shows the diverse and discordant opinions entertained by authors regarding the use of ipecacuanha. No one remedy can be considered a specific for either of the diseases in question. The writer, having been a great sufferer from both, briefly related his experience and experiments upon himself with various remedies.

He is convinced that fuming nitrous acid, 43°, as furnished by Powers and Weightman, of Philadelphia, is the best remedy that we have; it may be reinforced by opium, if necessary. His favorite formula is the following:

R	Acidi nitrosi, 43°,	-	-	-	-	-	f 3j.
	Tinct. opii,	-	-	-	-	-	f 3j.
	Aquæ destil.,	-	-	-	-	-	f 3vi
	Syr. simpl.,	-	-	-	-	-	ad f 3viiij.

M. Sig.—A tablespoonful in one wineglassfull of water every three hours.

This remedy will afford relief in the majority of cases of dysentery and camp diarrhea. Oil of turpentine is most valuable in the latter disease, especially in the hemorrhagic form as well as in the chronic diarrhea met with in private practice. The writer has for years used with success the following formula, which possesses the advantage of being pleasant to the taste, and is readily taken by children.

R	Acaciæ pulv.,	-	-	-	-	-	3 jss.
	Ol. terebinth,	-	-	-	-	-	f 3ij. 3ij.
Misce et adde :							
	Aquæ,	-	-	-	-	-	f 3iij.
	Syr. simpl.,	-	-	-	-	-	ad f 3xiij.

M. Sig. One teaspoonful every three hours to adults.

It will be noticed that this emulsion contains twenty drops to the dram, a quantity which is less likely to cause strangury than a smaller dose. It may be reinforced by tr. opii., to prevent undue catharsis. The dose for children should, of course, be proportionate to their age. I have found this combination invaluable.

In camp diarrhea another efficient combination is the following, which will be found useful also in summer diarrhea :

R<sub>y</sub> Hydrarg. chlor. mit., - - - - - gr. ij.  
 Pulv. ipecac. - - - - - gr. iij.  
 Opii., - - - - - gr. v.

M. et in chartulas No. x. divide.

Sig. One every three hours.

*Lithium and Arsenic in Diabetes.*—VIGIER recommends the following as more convenient than Martineau's arsenical liquid containing lithium :

R<sub>y</sub> Lithii carbonat., - - - - - gr. iss.  
 Sodii arseniat., - - - - - gr.  $\frac{1}{25}$ .  
 Ext. gentianæ, - - - - - gr.  $\frac{3}{4}$ .

For each pill. To be taken morning and night, and continued until sugar has disappeared from the urine. — *Therap. Gaz.* August, 1887.

*Night Sweats.*—DR. SAMPSON POPE recommends a decoction of cinquefoil, potentilla Canadensis, or potentilla Sarmentosa, which is indigenous in most parts of our country, as remedy for night sweats in wasting diseases. He has succeeded with this in some cases where atropine had failed. The decoction is prepared by pouring boiling water on a handful of the vine, leaves and root. The taste is pleasant and the patient may drink ad libitum. — *Therap. Gaz.*, August 1887.

*Formula for Naphthalin.*—ZOUCHARD suggests the following :

R<sub>y</sub> Naphthalin, - - - - - gr. lxxv.  
 Sacchari, - - - - - gr. lxxv.  
 Ess. bergamot, - - - - - gtt. ij.

Div. in chart. No. xx. Sig. One powder every hour.

The drug may also be given in gelatine capsules containing four grains each. It is an excellent antiseptic, and is generally very well borne, even to the extent of 50 to 75 grains daily. It has no effect upon the circulation, but is simply an intestinal antifermentative and germicide. — *Arch. de Phasm.*; *Therap. Gaz.* Aug. 1887

*The Geminated Pulse as a Guide in the Administration of Digitalis.*—BY P. DUROZIEZ. In 1859 I called the geminated pulse (pouls géminé) "digitalic," it so often follows the administration of digitalis in doses too large for the patient under treatment.

In our opinion the appearance of the geminated pulse is a warning for us to stop. If a regular pulse becomes geminated, we have gained nothing; it would have been better not to use the digitalis. If an irregular pulse becomes geminated, the effect is sufficient; we have done well, but should stop then.

The geminated pulse is composed of pairs of pulsations, one strong and one weak, the weak pulsation tending to disappear, but still existing at the heart. It may be regular and constant; the radial pulse beats half as often as the heart beats. The cardiac pulse is geminated; the radial pulse is not. It is not necessary that the pulse be constantly geminated in order to serve as a warning; even when inconstant it still warns us.

The geminated pulse may preserve its title, even triplicated, quadruplicated, etc. That which characterizes it is the regularity in irregularity. The geminated pulse would be only a type to which other forms approach more or less closely.

The geminated pulse does not belong to digitalis alone. We meet it in bronchial asthma, and it may be produced experimentally in animals.

It has been called bigeminated, alternating, hemisystolic.

The geminated pulse exists also in the veins but reversed; it is here the first beat which tends to disappear.

It is indispensable to study the geminated pulse at the heart, in the arteries and in the veins. The geminated pulse is a sign of practical utility.—*L'Union Méd.*, Aug. 9, 1887.

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## LARYNGOLOGY.

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*Hay Fever.*—In the inaugural address before the section in Laryngology the president said: Now a large percentage of those who formerly fled to the mountain tops in search of relief, may be cured at home by proper and rational surgical treatment. Seven years of observation strengthen his belief that a large proportion of cases depend upon a chronic intra-nasal disease, without the presence of which pollen, dust, and other agents are innocuous. A hope for the future is that more perfect local treatment may cure a still larger percentage.

*J. P. Klingensmith, M. D.*, of Blairsville, Pa., said that Dr.



W. H. Daly's paper, in 1881, first demonstrated the underlying naso-pharyngeal causes. The exciting cause does not work where nasal mucous membrane is healthy. Dr. Hock, of Freiburg, Germany, had placed much importance upon the pathological condition of the nasal mucous membrane as the fundamental cause.

From personal experience, Dr. Klingensmith would place local irritation, hypertrophies, deflected septum, etc., as the starting-point, and dust, pollen, light, heat, etc., as the exciting cause. There must be an abnormal condition before local irritants have power. Always make careful examination of anterior and posterior nares. Radical treatment is called for, especially where there is more or less occlusion. The cautery and Allen's or Jarvis' snare will bring about the best results under these circumstances. Sensitive areas he treats by the continued use of acetic acid or cautery. Use at a cherry-red heat; for if too hot one will have hemorrhage follow, and if too cool it will produce greater pain. Once in a week gives time to allay irritation by use of Dobell's solution, etc., before another sitting. Begin treatment at least two weeks before expected attack, and even treat or operate when the disease is at its height. Out of thirteen cases, he cured nine and greatly benefited four.

*Dr. E. F. Ingalls*, and *Dr. W. E. Casselbery*, of Chicago, Ill., say that it makes no difference whether the electrode is at a white or red heat as far as hemorrhage is concerned, provided that one does not break the circuit before the wire is removed from the tissues.

*Dr. J. Solis-Cohen*, of Philadelphia, says there are too many specialists and not enough practitioners. Lack of equal nerve-tension and action of vaso-motor system upon blood supply to vessels irritates and predisposes to hay-fever.

Treat constitution, and especially nervous system through interval till next attack.

*Dr. N. Rankin*, of Alleghany, Pa., read some remarks on the History of Rhinology. He said:

More advance has been made in the last twenty-five years than in the thousand preceding. It is hoped that it will continue. Each country comes in for its own share of the honor due to scientific work, and America is not behindhand by any means.

*Epistaxis*.—A special discussion was opened by *Dr. E. F. Ingalls*, of Chicago:

Ordinary cases are of no moment, and alarming only in young children and where the system is run down. Severe cases may demand constitutional treatment of ergot, gallic acid, etc., in addition to local applications. Most cases are readily checked by cocaine or tannin. Persulphate of iron is irritating; it causes hard coagulated masses, beneath which the bleeding continues and which interfere with the use of more effective remedies. Always try and locate the bleeding-point, and cauterize with galvano-cautery, nitrate of silver, iodine, or pure carbolic acid.

In the discussion that followed various methods were suggested for mechanically controlling the hemorrhage. Packing the nostril with long, narrow strips of lint soaked in alum, and replacing the same with one moistened with witch-hazel to allay irritation.

*Dr. Coomes*, of Louisville, does not approve of passing in pledget after pledget of cotton, as he has seen cases where one has been forgotten and caused trouble for years. Counter-irritation over the liver, with mustard-plaster, ammonia, or blister, is very efficacious. The placing of hands or feet, or both, in very hot water is often tried with success.

The successful results from the use of full doses of digitalis in severe cases was quoted to the Section, as was also the employment of sponge-tent and the domestic remedy of plugging the nasal cavity with a long piece of fat pork passed through to vault of the pharynx.

*Pathology and Treatment of Tuberculosis of the Larynx.*—*DR. LENNOX BROWN* says: The tubercular bacilli are generally admitted as a cause of specific laryngitis. Entrance is effected through the air passages, and they are especially liable to accumulate in the upper parts of the lungs, where there is less respiratory action. The disease is usually secondary to pulmonary tuberculosis, and may be due to infection from the bacilli in the sputa coughed up and inoculating some abraded or unhealthy and irritated portion of the larynx, or the germs may find their way thither through the lymphatic system. The bacilli, like all parasites, act as an irritant, and eventually cause breaking down of the tubercular deposits.

*Treatment.*—Where the general system is not broken down, or the disease advanced to the lungs, sea- or mountain-air and high altitudes, especially in pine regions, are of vital importance. Oxygen,

pure air, and the absence of germs are here more to be relied on than the thermal or climatic agents. Dr. Browne has ceased to advise the inhalation of medicated steam; but prefers oxidizing agents. Inhalations of vapor from turpentine, oil of eucalyptus, and menthol he has used with success.

It is well established that tuberculosis is a blood-poison, as is pyemia, septicemia, and the like. Germicides should be used, and benefit will result. He places great confidence in atropine, not only as a sedative, but a germicide as well. Arsenic often works in the same manner as does mercury in syphilis. So, also, do the salts of calcium, where there are tubercular deposits. The aniline treatment has not been a success, and the gaseous injections are still on trial. Experiments with sulphuretted hydrogen show temporary improvement, with diminution of the amount of sputa expectorated, less pain, and less distress from persistent cough. Still the permanent benefit is doubtful. This treatment needs careful supervision, and should not be trusted to the patients or their friends. The local treatment of tubercular laryngitis gives best results, especially where systemic treatment is also employed to maintain health and nutrition. Use cocaine, and employ galvanocautery or lactic acid to destroy the deposits and induce healthy healing of the parts.

Where the infection is local, our success is in proportion to their accessibility.

Does not like the iodoform or iodol dissolved in ether, as the ether is too much of an irritant. Prefers a brush made with cotton to the spray, in that it coats the surface better and is pressed into folds which are protected from the spray by the spasm of the larynx. The continued use of the spray he considers dangerous to the cilia of the epithelial cells. Local and systemic sedatives are emphatically called for. Insufflations are not as good as where emulsions are made with acacia, as they are apt to form cakes. Cocaine gives temporary relief, but morphia, belladonna and balsam are more permanent in their relief of both pain and cough.

The surgical measures are to scrape away the deposits with curette or forceps, under cocaine, and apply lactic acid. Do not stab or incise; it may relieve tension and congestion, but is bad in that it gives new foci for infection. Tracheotomy, for the purpose of giving rest to the larynx, is useless and worse. The larynx does not then receive the necessary air and oxygen, and bacilli-infected



mucus accumulates. The cold and dry air irritates the lungs and may induce pulmonary complications. Besides, the wound may become infected. Intubation of the larynx likewise causes too much irritation and aggravates the trouble, independent of the risk of blocking up the tube. Even refrain from removing elongated uvula. Does not approve of recent suggestion of extirpating diseased portions.

Many apparent cures are reported, and he has had such cases himself, but is inclined to doubt their permanence. Can improve condition of larynx, stop pain and cough, cause better assimilation of food and improve nutrition. There result local relief and apparently satisfactory results, but scarcely a cure as claimed by Schmidt, Bosworth and others.

*Dr. Sinclair Coghill*, Ventnor, England, advised to treat more to alleviate pain and distress which tend to shorten life, and obtain as much rest for parts as possible. Look to body nutrition. We do not see parasites in vigorous tissues. Those well nourished are not liable to infection.

*Dr. Casselberry*, of Chicago, doubts the good effect of lactic acid as it causes too much irritation, increases the cough and does harm. Main point is to cleanse thoroughly, and use morphia and iodoform, or better yet, iodol, which is lighter and more easily diffused. Temporary effect of cocaine is excellent, but continued use is bad. It causes reaction with congestion, increased irritation and inflammation. Morphia better, and with iodoform effect is for a longer time.

*Dr. F. O. Stockton*, of Chicago, Ill., has not had any success from scraping ulcers, and uses lactic acid from ten to ninety per cent. He saw a case in Vienna where there were both tubercular and syphilitic ulcerations of the larynx.

*Dr. Curtis*, of Chicago, says that atropine is of no use. Sprays the larynx with nitrate of silver, with the result of healing the ulcers.

*Dr. Browne* believes in the bacillary origin of the disease, but treats both bacillus and tissue as well. Note the close relation of bacillus of tuberculosis to that of lupus. Must treat individual cases. He has had no good results from large doses of quinine, as it was not assimilated. Iodide of potash proved harmful, by causing loss of weight and interfering with nutrition. It is of benefit only in syphilitic laryngitis, which can readily be mistaken for tubercular.

*Recurrent Hemorrhages of the Upper Air-Passages.*—WILLIAM PORTER, M. D., ST. LOUIS, MO., considers that laryngeal hemorrhages are immediately dangerous only when beneath the mucous membrane, when they produce a hemorrhagic edema and impending asphyxia. Laryngeal hemorrhage is very easily mistaken for hemoptysis, but on auscultation can discover no pulmonary signs. A list of the causes of hemorrhage from different parts of the upper air-passages was given, with both medicinal and mechanical treatment of each.

*Chronic Rheumatic Laryngitis.*—DR. E. F. INGALS, Chicago, Ill., says this disease has been recognized for several years, but never thoroughly studied. It is erratic and obstinate. Pain may disappear for a few days and then return. In no case is the pain very severe. Hoarseness and aphonia are marked. Pain worse in damp or wet weather, but varies from day to day. Larynx alone may be invaded, or base of tongue and hyoid. May have distention and swelling of arytenoid joint. Diagnose by excluding neuralgia, phthisis and syphilis. Often confused with neuralgia when no swelling. May last from two months to a year or more, with periods of immunity. Ultimate recovery, though one case lasted four years.

*Treatment.*—Cleansing and astringent spray. Salicylate of soda, iodide of potash, alkalies, oil of gaultherium, ext. phytolacca, etc., used with benefit.

*Resorcin in the Treatment of Nasal Catarrh.*—DR. A. B. THRASHER, Cincinnati, O., says: Resorcin has a great affinity for oxygen, and absorbs it from the tissues, reduces congestion and inflammation by contracting the vessels. In hypertrophic catarrh, contracts turbinated tissues and effect lasts a long time. Cocaine is only temporary. Good results in infectious skin diseases because antiseptic; penetrates skin and kills germs. Cocaine interferes with secretion and proper functions of mucous membrane. Resorcin gives same results, but normal functions remain. It is slower in action and more lasting in result than cocaine. Cleanse nose with boracic solution or Dobell, and use two to ten per cent in vaseline or cosmoline; use a spray every second day. For patient's own use give two to four per cent. It will cure where dilated turbinated tissue is in from two to six

weeks. Allays all redness and congestion. Turgescient state yields better than where pure hypertrophy.

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## DISEASES OF CHILDREN.

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*Ignipuncture of the Tonsils.*—M. SAINT GERMAIN, in a communication to the Section on Diseases of Children of the Ninth International Medical Congress says:

Tonsillotomy is not free from the possibility of fatal accidents. To mention uncontrollable hemorrhage and invasion of the wound by diphtheria is to make it clear that the operation is not so harmless as has been supposed.

“Krishaber tried the thermo-cautery, but this application was so superficial that treatment was indefinitely prolonged.

“I operate with the aid of a modified Smith’s gag, thrusting the thermo cautery into the tonsil to the depth of three-eighths of an inch. Two to four applications, at weekly intervals, reduce the tonsil to a shrivelled and insignificant stump.

*Preputial Dilatation*, the same surgeon says, may well take the place of circumcision, which is sometimes followed by serious hemorrhage, diphtheritic invasion of the wound, or partial gangrene.

“I reserve circumcision for those cases alone (about one in three hundred) in which dilatation is impracticable. I use a two bladed dilator instead of the three blades of Nélaton, introducing it and slowly expanding the orifice. The operation is finished by separating the adhesions with a grooved director, and is followed by daily massage, in which the glans is alternately exposed and covered.

“With both of these simple procedures I have always secured excellent and durable results, and have met with no untoward complication. In view of the great frequency of these two classes of cases, am I not right in presenting these simple and effective procedures as a surgical advance ?

*Deleterious Results of Narrow Prepuce and Preputial Adhesions.*—DR. LEWIS A. SAYRE says: It is now generally admitted that paralysis, and various other nervous symptoms, including a want of co-ordinating power, are in some cases induced by the pressure of the prepuce on the glans. The remedy is removal of the con-



striction and of the retained and concreted smegma, and such an arrangement of the parts that the prepuce shall glide easily to and fro over the glans, without restriction, permitting cleanliness, and thus removing one great source of danger.

For this proper arrangement of this prepuce it is necessary in some cases to perform circumcision, or an actual removal of a small portion of the prepuce, and sometimes to dissect it from actual adhesion which is a very different thing from ordinary normal agglutination. But there is no occasion for removing any tissue, unless there is great redundancy with constriction. And in the great majority of cases the object sought can be easily accomplished by pushing a grooved director as far back as possible, and then dividing with the curved bistoury enough tissue to allow of tearing back the prepuce and uncovering the glans. The next step is to make a slight nick with the scissors, or bistoury, through the thickened fold of the edge of the frenum. Having done this, it is easy with the thumbs and forefingers to tear down the frenum and other adhesions, expose the glans, and remove from the sulcus behind the corona the hardened smegma, sometimes containing chalky concretions. In this procedure there is little loss of blood, and no loss of tissue whatever. A stitch on either side of the incision, between the skin and the mucous membrane, may or may not be required. Having been responsible for bringing the subject before the profession, he wishes to raise his voice against the mutilation and disfigurement of the organ which is often seen, which by too free removal of the prepuce leaves the glans entirely unprotected, as well as against the indiscriminate performance of the operation in cases where it can be of no avail.

*Cow's Milk in the Artificial Feeding of Infants.*—PROF. V. C. VAUGHAN says: that three years ago he isolated the active principle from poisonous cheese, and named it tyrotoxicon. Later he found the same principle in milk, ice cream, and other articles of food. In experimenting with this poison it was found that its action on the lower animals produced the phenomena of cholera infantum. The symptoms and the post-mortem appearances were identical. From this it is easy to understand the prevalence of cholera infantum among the very poor, where fresh, wholesome milk is almost unknown.

Not a few medical teachers advise the prohibition of milk dur-

ing the progress of cholera infantum, basing their opinions on clinical experience. The same view had been reached by the author of the paper through a long series of laboratory experiments, which show that normal milk inoculated with a small portion of poisoned milk and kept a few hours at the temperature of the body becomes itself poisonous.

*Tubage of the Larynx.*—DR. E. BOUCHUT reports that in the year 1858, he had tried the effect of tubage of the larynx with three recoveries in ten cases. He related one case in detail. The child was eighteen months of age. The symptoms were very serious. The face was livid, and the diminution of sensibility indicated approaching dissolution. A silver cannula was introduced on the end of a sound, with a silk thread attached for extraction. It was coughed up and replaced, and on the sixth day was finally removed, and the child made a complete recovery.

Dr. Joseph O'Dwyer, began experiments in 1880, at the New York Foundling Asylum. At that time tracheotomy was in disfavor at the asylum, because for some time its usefulness had not been demonstrated by a single recovery. The difficulty and danger of tracheotomy deter many physicians from the operation, and not a few of the laity fail to understand how a child's suffering can be relieved by cutting its throat.

He described the various steps which had led to the adoption of the form of instrument and mode of operation which he now advocates.

Intubation is apparently, but not really, a simple operation. With more than the usual dexterity and coolness, and an easy case, it will be called by the physician who tries for the first time, a very simple thing. With less dexterity and a difficult case to manage, it will be called a difficult operation.

When established, and perfected, and in common use, intubation can never be considered a satisfactory remedy, in view of the complications and the very nature of membranous croup. The first results, if good, will create enthusiasm; if bad, distrust.

In comparing tracheotomy and intubation, the question is not which will save most lives in a given number of cases submitted to treatment, but which operation can be performed or will be permitted in the greater number of cases.

Dr. F. E. Waxham, of Chicago, while strongly advocating intu-

bation, would not overlook its disadvantages. The operation is a difficult one in its performance. The soft tissues may be wounded or the trachea perforated. It is more difficult to extract than to insert the tube. Serious trouble may ensue from the difficulty of swallowing when the tube is in place. These are the dangers. None are so grave that they cannot be overcome.

On the other hand, it has many advantages over tracheotomy. It can be done almost instantly. There is no loss of blood, no pain, no shock, no open wound with the possibility of septicemia or erysipelas. There is no drying of mucus in the tube, and no necessity for cleansing the tube. Less attention is required in the after-treatment. Finally, we can save as large a number of adults as, and a much larger number of children than, by tracheotomy.

He states that intubation has been performed one thousand times within two years, and that two hundred and sixty-nine lives have been saved from certain death.

Dr. Charles G. Jennings, of Detroit, prefers tracheotomy. His 36 tracheotomies had been followed by 17 recoveries, while he had applied the tube in 12 cases without a recovery. He believed that certain operators in both operations have records far above the average, and that the successful tracheotomists have a larger proportion of recoveries than the physicians performing intubation who rank as the most successful. He believes that the personal equation is an important element in considering the comparative value of the two procedures.

Adequate nourishment after intubation is almost impossible, while there is no such difficulty after tracheotomy.

An obvious advantage of intubation is that it can be performed by many physicians who would not undertake a tracheotomy and in this way relief, impossible otherwise, will be afforded in a great many cases. His own experience, however, leads him to urge tracheotomy in all cases offering reasonable chance of success, and to reserve intubation for the cases in which interference will give nothing more than euthanasia, and for those patients whose parents refuse consent to tracheotomy.

Dr. O'Dwyer, in answer to questions, said that, in his opinion, statistics will be of very little value in settling the question between tracheotomy and intubation until a very large number have been obtained. Aside from the question of saving life, intubation will be resorted to in the most hopeless cases, those in which



tracheotomy would not be thought off, for the sake of securing euthanasia.

*Infantile Marasmus.*—DR. ISAAC N. LOVE says: A careful study of a large number of cases has suggested to him the following conclusions:

1. Infantile marasmus is dependent primarily on torpidity and inactivity of the glandular system; and is aggravated by unsuitable, over-abundant, or insufficient food and unsanitary surroundings.

2. It is of the first importance, in treatment, to arouse secretion and excretion, the best remedy being calomel in one-twentieth of a grain doses, with the free administration of water; both of these agents exciting glandular action, stimulating the secretion of the digestive juices, and promoting diuresis and intestinal secretion.

3. "In the matter of diet, mother's milk is the best, and some other mother's milk the next best."

4. In extreme cases, administer soluble foods in the forms of baths, and practice gentle friction and massage, with an occasional bath in water containing a diffusible stimulant.

*The Nutrition of Infants.*—PRO. ALBERT R. LEEDS, has undertaken to find a true basis for the preparation of artificial food by analyzing eighty samples of human milk. He found that human milk differs from cow's milk chiefly in the proportion and digestibility of the caseine, which is smaller in quantity and more easily digestible in human than in cow's milk. He believed that he had solved the problem by digesting the caseine by a peptogenic powder, easily obtainable and of constant strength, which, with the aid of heat, reduced the caseine in five minutes. Before this cooking, the milk had been first diluted with water in order to lessen the proportion of caseine, and then had been enriched by the addition of cream to restore the normal proportion of fat. The results of a very large number of trials, followed by careful observation, encouraged the belief that by this process the artificial feeding of infants had nearly reached perfection.

*Section of Contractured Tissues Before Mechanical Treatment.*—DR. LEWIS A. SAYRE, defined his position as follows: A contracted tissue is one that is simply shortened, but which can be elongated by careful, continuous, and judiciously applied traction and manipulation. A contractured tissue is one which has undergone

some change of structure in the fibrillæ of the muscles, and which cannot be elongated or stretched. Distortions or deformities which are the result of contracted tissue can only be removed by forcible rupture of the same, or by cutting before traction is applied; but similar deformities resulting from simply contracted tissue may frequently be rectified by manipulation and constant traction, properly applied, without section of the tissue. How are we to know whether the tissue is contracted or contractured? If in any case of club-foot or other deformity from muscular contraction we stretch the shortened parts to their utmost tension by manual force or mechanical aids, and when the parts are thus stretched we suddenly add to the tension by pressing with the thumb or finger on the part thus stretched, or by pinching the stretched tissue between the thumb and finger, and if by either of these acts we produce a reflex spasm, or sudden shivering of the whole body, that muscle, tendon, or tissue, thus yielding this reflex spasm is contractured, and cannot be elongated without severing of its fibres. If, on the contrary, when the test is applied as above described, and no reflex irritation or muscular spasm is produced, it is evident that the parts are simply contracted, and can be further elongated by persistent constant traction and proper manipulation, and therefore do not require divulsion.

To attempt to stretch a contractured tissue causes unnecessary pain, and exposes the patient to the risk of disturbances of the nervous system through long-continued irritation. In all such cases it is infinitely safer to make such division by subcutaneous section than by manual or mechanical force. Treatment is to be completed by massage, friction, active and passive motion, electricity, and such mechanical appliances as may be required in each case. A number of illustrative cases were given.

*Hepatic Cirrhosis in Children.*—DR. R. PALMER HOWARD, of Montreal, reports two cases of this rare affection in children, in which neither the use of alcohol nor the virus of syphilis can be assigned as the cause. Dr. Howard then presents a very careful study of the clinical histories of 63 cases occurring in children before puberty of which he has been able to collect records. As the result of this analysis he finds:

1st. That most of the established causes of the disease in adults obtain also in children, more especially the use of alcohol, present

in 15.8 per cent of the whole number; syphilis, chiefly hereditary syphilis, present in 11 per cent.; tuberculous disease of other organs than the liver, in 11 per cent.; also, but much less frequently than these, venous congestion of the liver, peritonitis, and a general tendency to connective tissue formation in the system.

2d. That syphilis occasionally tends to a diffuse interstitial hepatitis or cirrhosis, by first inducing an adhesive inflammation of the portal vein.

3d. That a general arterio-capillary fibrosis is not proved by these cases to be the usual, and probably not even a frequent, cause of hepatic cirrhosis in childhood.

4th. That more than half of the cases of hepatic cirrhosis in children do not appear to be produced by the above-mentioned well-established causes of that affection.

5th. That there is some evidence that cirrhosis of the liver may be very exceptionally induced by the acute infectious diseases—cholera, typhoid fever, measles, scarlatina, but that proof of this is wanting.

6th. That the habitual use of a stimulating diet, or the absorption of the products of faulty digestion, are probably fruitful sources of hepatic cirrhosis in children.

7th. That it is in harmony with what is known of the causes of hepatic cirrhosis to believe that the bodies known as ptomaines may be capable of exciting a cirrhotic condition, and that investigation of this subject deserves attention.

8th. That the period of childhood most liable to cirrhosis of the liver is from the ninth to the fifteenth year inclusive, but that it may be congenital, and may occur at any age after birth.

9th. That it is twice as frequent in male children as in female.

10th. That its symptoms are essentially the same in childhood as adult life.

11th. That it is frequently accompanied by pyrexia.

12th. That ascites or icterus, and frequently both together, are of common occurrence in the atrophic and hypertrophic forms.

13th. That the group of symptoms which have been referred to cholemia or to cholesteremia, or to acholia and even sometimes to uremia, frequently ushers in the fatal issue of hepatic cirrhosis in children.—*Am. Jour. of the Med. Sci.*, Oct., '87.

*Chorea Laryngis*.—DR. JOHN O. ROE says this affection is usu-



ally associated with an attack of general chorea. He gives the history of a case where the affection was purely local as to its manifestation.

Miss S——, aged seventeen, delicate and nervous, after an attack of quinsy, developed a peculiar spasmodic and uncontrollable cough. She would cough rapidly ten or fifteen times, with a peculiar hoarse, barking sound, after which there would be an intermission of from one to three minutes. The cough was in sound so like the barking of a dog that she was the curiosity of the neighborhood, and known as the "barking girl." It did not continue during sleep. Tried electricity and local application without effect. Hypodermics of morphia and atropia produced only temporary relief. Benefit was derived from treating as chorea. Suddenly ceased after seven months.

As a rule, the treatment should be systemic, in addition to local applications—arsenic, valerianate of zinc, iron, valerianate of atropia, hydrocyanic acid, morphia, etc.

Dr. Thorne, of Cincinnati, O., mentioned several cases where chorea laryngis was associated with pregnancy, beginning in second or third month, and ceasing spontaneously just before delivery. He had one case where there was such an alarming spasm of glottis that he thought he would have to perform tracheotomy. Cords constantly in motion between attacks.

Dr. Lennox Browne, of London, England, has seen cases where the disease appeared with each pregnancy, and disappeared just before delivery. Also three cases where it was cured by the removal of enlarged tonsils. He thinks a sea-voyage the very best remedy.

*The Deleterious Effects of Tobacco on the Throat and Nose.*—DR. M. F. COOMES, of Louisville, Ky., said that he considered smoking far more injurious to these parts than chewing. The smoke came into the mouth heated, and loaded with an irritating oil that would soon coat the mucous membrane were it not washed away by the saliva. Cigarette smoking is especially injurious, because the smoke is so universally inhaled, causing pharyngitis, laryngitis, and chronic irritation in the nose, not to mention the injury it may occasion to trachea and lungs. Where the smoke is habitually expelled through the nose, we find hypertrophies, congestion, dilated vessels, and a hemorrhagic condition. The smell is impaired or destroyed. The potash salts may also have some effects in adding

to the injury. Ninety-five per cent of smokers have something abnormal or unhealthy about the upper air-passages. In bad cases he found chronic hyperemia and inflammation of epiglottis, with congested cords, and a hacking cough to remove the tough mucus; the voice tires easily.

A peculiar form of tobacco habit is what is known in the South as dipping snuff. It is prevalent among negroes and the lower classes of whites. They chew the end of a twig so as to form a rude brush, then they continually dip this into a small box of snuff, and rub it over gums and teeth. The gums pushed down on the teeth are red and inflamed, from tobacco lodged between them and the teeth, and the whole pharynx is inflamed.

Dr. Stockton thinks that as a nation we are the greatest chewers, and that chewers suffer most. He does not like potash salts used on throat or nose.

Dr. Browne smokes cigarettes, and considers them less harmful than any other form, if we don't inhale the smoke, and use a fresh mouth-piece.

The taking of snuff is an especially baneful habit, and likely to cause polypi. Singers should not use tobacco. He excludes potash salts, except, perhaps, the bromide, in treating upper air-passages.

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ANNALS OF GYNECOLOGY.—This new special journal comes to us from Boston, the editor being Dr. E. W. Cushing, of that city, with a corps of collaborators in New York and Chicago. This number contains several well written papers, the first one being accompanied with seventeen illustrations of which some are admirably executed while others are very inferior. The subscription price for the first year is \$1.00, after that \$2.00.

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COLLEGE OF PHYSICIANS AND SURGEONS OF NEW YORK.—The opening of the new building for this institution provided by the munificent liberality of the Vanderbilts was celebrated by the faculty, trustees and alumni with appropriate exercises at the college and an elaborate banquet at Delmonico's on the evening of Sept. 29. This is the best endowed institution for medical instruction in the United States.

## SOCIETY PROCEEDINGS.

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### ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

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Stated meeting, September 22, 1887. DR. COLES, President, in the chair.

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#### ANENCEPHALUS.

*Dr. Hulbert.*—I shall present instead of a paper a specimen which only came into my hands night before last. On the morning of September 20, I was called to attend a lady, whom I was told was in the seventh month of gestation, and was having some pain. I found a very nervous, hypersensitive, excitable woman about 29 years of age, presenting all the symptoms of a threatened miscarriage. Upon examination and from the history I felt satisfied that she was about in the beginning of the seventh month of gestation. Of course my efforts were directed toward the preventing of a miscarriage, if possible; but in spite of everything that I could do, she aborted at about eight o'clock in the evening, and the result was an anencephaloid monster.

The history of the case is about as follows: Her last menstruation occurred March 6, 1887, but she was of the opinion that she became pregnant about the 30th, just following a separation of ten days from her husband, and what attracted her attention more especially than anything else to the fact that she was pregnant was a very decided dream she had that night, that she was pregnant. The next morning she told her husband she was satisfied that she was pregnant, and dated the time of gestation from that time. Gestation progressed to about the third month, when without any apparent cause she noticed a discharge of blood from the uterus, which occurred at about the time she should have had her period, if she had not been pregnant. The discharge of blood was rather sharp, not accompanied with a great deal of pain. She did not abort, but following that she suffered almost constantly



more or less pain and discomfort; there was always a hyperesthesia of the uterus from that time on, and she felt all the time as if she was on the verge of abortion. Her sufferings were very intense at times.

When I examined her at the time I first saw her, I could not touch her, particularly in the left iliac region or use any degree of pressure without very severe complaints of pain; generally the entire uterine globe was tender. She was exceedingly nervous, scared nearly to death, so that it was necessary to use morphine to quiet the nervous condition as well as to attempt to control the tendency to abort.

I have made a partial dissection of the specimen, sufficient to be able to determine the class to which this monster belongs. In order to give the members a general idea before they examine it I will read the result of my examination this afternoon. From an external inspection we have a fetus probably at the 7th month. It was living at the time of delivery; there were convulsive movements during delivery at least; there was one inspiration while the body of the child was in the vagina; and no cry or respiration after delivery. It was a breech presentation. The arms and legs are normal; the anterior surface of the body is normal; the umbilicus is about three centimetres from the pubes; the cord small, not twisted and flabby; length about 40 cm.; placenta pale and bloodless, fatty degeneration. The membranes and placenta are entire. A large clot was found on the edge of the placenta extending toward the central insertion of the cord about five cm., recently formed; there was no evidence of inflammation of the secundines. The frog face is very pronounced; hairy scalp extends back to a line joining the posterior edge of the ears carried over the head. At the posterior margin of hairy scalp is attached a transparent membrane which passes downward over the deformed vertebræ, forming a sac, containing serum and blood extending down to the sacrum. The anterior surface of this sac is intimately connected with the posterior surfaces of the spinal column by cords of tissue which issue from or are attached to the margins of the foramina in bones of spinal column. There are two rows of these foramina separated one cm. which extend from the upper to the lower portion. Covering over this broad posterior surface of the vertebral column is a transparent membrane, arachnoidean in character. Lifting this off we see centrally one, cm. broad, a ribbon or thin band of white tis-

sue, like nerve tissue; extending from this band, on each side, one for each of the above mentioned foramina, is a strand of the same tissue; these strands pass into the several holes. I have not made the dissection sufficiently extensive to find out whether there are nerves branching from this ribbon or not. This is probably the spinal cord; beneath this ribbon is another layer of the arachnoid tissue and the periosteum, and anterior to this the body of the vertebræ. The transverse processes pass outward and backward terminating in small nodes. At about the site of the seventh dorsal, an attempt has been made on the left side to form the spinous process and posterior arch. This is only on the left side. We count 24 foramina above the sacrum, which is also spread out or wanting in posterior arches, in proportion to the spreading of the spinal column itself. After lifting the scalp the skull is found to consist of the orbital part of the frontal bone, the superciliary ridge being back of the eyeballs and slightly above a longitudinal plane passed through their centres; only a rudimentary part of the frontal plate is present. The nasal bones are correct and in situ. The petrous portions of the mastoid and the posterior part of the squamous portion of the temporal bones are present, and it is to the superior posterior point of this squamous part of the temporal bone that the scalp and membranes or meningocele is attached. These points stand up like horns, so that a posterior view shows the body of the sphenoid, basilar portion of occipital bones supporting these upright bones or bones of the temporal. There is a rudimentary parietal plate on each side, one cm. wide and two cm. long, situated between the squamous portions of the temporal and posterior edge of frontal bones. The frontal and parietal plates meet in the median line; the squamous portion of the temporal is joined by fibrous membrane. The occipital, parietal and squamous plates are down and resting on the base of the skull, leaving only a shallow slit between the anterior base of the skull and the above plates, in which space nothing can be found resembling nerve or brain structure. The cavity of the meningocele led directly into this slit, so that the meningocele, when distended would present the appearance of a large waterfall occasionally worn by our feminine ancestors. From the relation and attachments, this sac is the distended arachnoid of cranium and spine. The skin over the vertebral column is wanting, the line of demarcation between this and the thin wall of the meningocele being just external to the ends of the transverse processes.

I made an incision through the abdominal walls to get my finger on the anterior part of the column, and I found that anterior to the part that presents posteriorly, there is simply the body of the vertebræ, and I verified that by cutting through the spinal column.

There are a few points in connection with this patient that I would like to mention. It seems that the mother of this patient has given birth to a monster also. I simply got the statement from the patient, who said that the doctor who attended her mother said the child was deformed; she was not able to tell me in what the monstrosity consisted. In addition to that, from the time that she had this dream, or from the time she was satisfied that she was pregnant, she was entirely convinced in her own mind that her child would be a monstrosity. I asked her the reason, and of course tried to persuade her that her fears were ill founded. This was before the delivery.

*Dr. Coles.*—Did she mention the fact that her mother had given birth to a monstrosity, before delivery?

*Dr. Hulbert.*—Yes, sir, and said that she felt satisfied her child would have something the matter with it.

*Dr. McPheeters.*—Why did she think so?

*Dr. Hulbert.*—Simply because her mother had given birth to a monster and a good many other women had; and it was a vague impression that she could not get rid of.

*Dr. Frank Glasgow.*—Had she ever seen such a monster.

*Dr. Hulbert.*—No: there had been nothing presented to this woman that would be at all startling; she is one of your "stay at homes" and had no unpleasant accident during the time of her gestation.

Now there was another point in regard to this specimen that I would like to call to your attention; that is the fact that this child during the delivery had convulsions, more particularly when there was any pressure brought to bear; that is it would kick and there would be convulsions in different parts of the body. Upon looking up what little literature I have on the subject I find that Cazeaux makes the statement that he has been able to diagnosticate an anencephalous monster by that one sign, that whenever there was pressure made upon the presenting part (it is not stated whether it was vertex or breech) whenever pressure was brought to bear upon the presenting part the fetus would be thrown into convulsions. This fetus unquestionably had convulsive movements during its



delivery. It may be that the pressure applied through the waters that were left or something of that sort may have caused these convulsions. There does not seem to be enough nerve lesion here to be able to produce a convulsion. From the motion I felt I thought that the child made an attempt at respiration; there was a sudden and large distention of the abdominal walls, filling the cavity of the vagina.

*Dr. G. A. Moses.*—After birth was there any convulsive attempt or anything of that sort?

*Dr. Hulbert.*—No, sir; there was not a movement of any kind. The cord did not pulsate during the delivery of the child.

*Dr. Coles.*—Did the mother feel the motions of the child before its births?

*Dr. Hulbert.*—Yes, sir.

*Dr. Coles.*—I should say that this was proof positive that there was some functional development of the spinal cord.

*Dr. Hulbert.*—Another point that Cazeaux mentioned in regard to this is the quantity of amniotic fluid. There was an enormous quantity of it compared with the period of gestation; and there was another feature that struck me the first time I saw the woman; she did not seem to be large enough for a full seven months gestation; and making the examination I thought she did not have the dimensions of a woman in that stage of pregnancy; the abdominal walls were very tense, hard and contracted, so much so that she seemed to have a tendency to flatten out—to flatten the projecting portion or rotundity of the uterine globe. She was a primipara, and this, according to some authorities, may have some influence upon these monstrosities.

*Dr. G. A. Moses.*—What was the nativity of the woman?

*Dr. Hulbert.*—She was an American, and there was no history of syphilis in this case.

*Dr. Papin.*—This thing is not so uncommon, though fortunately not very frequent.

#### MATERNAL IMPRESSIONS.

*Dr. Scott.*—What are your views upon maternal impressions upon the fetus?

*Dr. Papin.*—They have so little to do with the development and growth of the child in most instances that I pay no attention to them. There is a coincidence occasionally that may lead us to be-

lieve that there must be some maternal impression producing these monstrosities, but then when a woman will declare from morning to night and night to morning that there is a man in the house and look under the bed every night to find one, it is to be expected that she will sometime find one there. Certainly the headless fetus is a much less common thing than an armless or legless one, as far as the record is concerned, and here we may have a fair explanation of the amputation of the limb in the earlier stages of gestation. I remember one notable case in which a woman was strongly impressed that her child was to be born without a leg, and it was born without a leg. In that case there seemed to have been a moral influence which imposed this penalty as a punishment for some rather harsh treatment which she had witnessed. These mulberry and strawberry marks and all those things, the result of mere accident in the birth or prior to the birth, and when the child is born the mother remembers that she trampled on a mulberry or wanted a strawberry very badly or something of that kind; it is all nonsense. I certainly have not seen enough in my own personal observation to induce me to change my ideas about the matter. Dr. Boisliniere who has had a much larger experience could probably tell us some very extraordinary things in regard to this matter.

*Dr. Boisliniere.*—I think that Dr. Papin has had as much experience as any obstetrician in this city; still it falls to the lot of some men to see a series of peculiar cases. I have perhaps seen more of these cases than some other obstetricians, who have had a larger practice than I.

The etiology of these cases is very obscure. I do not think maternal impressions have anything to do with it. It may be due to malnutrition. Sometimes syphilis is mentioned as the cause, but syphilis has nothing to do with these malformations; it produces other mischiefs, but not these deformities.

They are not very common. I have seen perhaps a half dozen or more cases. One of the first cases that I saw was one like this where there was an arrest of growth—*spina bifida*, extending from the sacrum to the occipital bone; it was a cross presentation; I felt the external irregularities, the transverse processes of the vertebræ, but no spinous processes, and I ran my fingers along and felt something soft. But these cases are very difficult to diagnose; you may confound them with a great many things. Sometimes the presenting sac is very soft or you may take it for a placenta previa

or a placenta dislodged from its moorings. Of course if enough of the body of the child is delivered, the diagnosis may be easy enough. I have cases such as that, and also cases where there was an arrest of the growth of the occipital bone, and a hernia of the cerebellum also a case where there was a large portion of parietal bone wanting. Hernia of the brain and encephaloma are difficult to differentiate. I remember a case which I saw with Dr. Pope. I thought it was hernia of the brain, but he said it was an encephaloma. I have seen cases of hernia of the brain where there was a large piece of parietal bone wanting. I remember a case of encephalocele which struck me as being remarkable because it was simply a case of arrest of the growth of the vault of the cranium. Really I was at sea to know what it was, and only after the child was born did I recognize the condition of affairs. The rest of the column was perfect, not wanting in any of its elements, but the whole vault of the cranium was wanting. The child lived thirty-six hours, moaning all the time, showing the independence of organic life from the brain, the child never had any convulsions: it died gradually, from what cause I do not know. The child was very large. The mother vomited a good deal during the third and fourth month, when the osseous formation of the child becomes perfect; she had constant vomiting and was really starved almost to death, but we finally controlled the vomiting, but this malnutrition during the period when the bones of the child were being formed may have caused the malformation. I cannot tell. There was no history of heredity in her family, and she was a very healthy woman, and the only thing I can refer it to is the want of nutrition during the three or four months when she was nearly starved.

*Dr. Frank Glasgow.*—Did the mother have any premonition that the child would be deformed?

*Dr. Boisliniere.*—No, Sir, she had no maternal impressions.

*Dr. Papin* I do not think the doctor intended to convey the idea that the mere vomiting during her pregnancy—the want of proper nutrition on the part of the mother would cause this malformation.

*Dr. Boisliniere.*—No, Sir, we frequently have this vomiting without any malformation of the child. In the cases that I have seen, the mother's recovery has been very good. I think the fact



that one of the children lived thirty-six hours is somewhat remarkable.

*Dr. Hulbert.*—Was there any cerebrum developed at all?

*Dr. Boisliniere.*—No, it was perfectly flat, the eyes protruded. The medulla oblongata was perfect in that case, but in the other cases I have seen where there was spina bifida, of course there was the same appearance that we have in this specimen.

*Dr. G. A. Moses.*—This specimen that we have been shown is one of interest merely as a specimen. It has never been my fortune to meet with such a case, and I do not recollect ever hearing of one amongst the profession in this city. When I was a student I think Dr. Baumgarten showed me some such monstrosity. We know very little about these cases. They are matters of pathological interest. We cannot foresee them, nor can we conceive any way by which they might be caused. It is simply a lack of development of some portion of the embryonic structures, which has by some been supposed to be due to disease, particularly syphilis. But I don't think that there is any ground for the opinion that any known form of disease may give rise to this peculiar lack of development, which is singularly symmetrical. Either the posterior or the anterior arch or the abdominal arch is in some way prevented from making the proper fusion, formative force seems to be arrested, and as a result, as in this case, we see an entire absence of bony structure of the posterior arch of the vertebral column extending from the sacrum up to the frontal eminence. There is barely a trace of frontal bone, the posterior arch is entirely wanting.

A matter of some interest to me in this case was the dream the doctor referred to. It has been my fortune to come across two very remarkable instances of peculiar nervous impressions produced by successful coitus. They were very interesting to me from the fact that they have been apparently connected with the subject that is always a matter of interest, that is the nervous connection of the sexual apparatus. The doctor says that this patient dreamed upon the night of the supposed successful coitus that she had conceived, and the dream made such an impression on her that she told her husband of it in the morning. I recollect two patients, notes of which I have preserved, each of whom told me within twenty-four hours after coitus that they were satisfied they had conceived, not from any erotic or sexual impression that

they were conscious of, but it seemed to be a peculiar nervous condition which they never experienced at any other time. One told me she had recognized it at the time of conception of almost every child that she had had, until she had gotten to know positively when she conceived at the moment of the coitus or a very few moments after. So far as regards impressions of the mother having an influence on the development of the fetus, I am satisfied that they can have no effect one way or another, but it is a curious fact that in some people there is a very close alliance between some mental functions and the genital apparatus; perhaps these things are more frequent and the sympathy is more close than we recognize, simply from the fact that no importance is placed on it and the patient fails to recall it, but I believe that it would be more common than we are aware of if it could be systematically investigated. I have no doubt that all the gentlemen present have patients whose stomach immediately becomes nauseated following successful coitus, not waiting the ordinary term of a few weeks until the intrauterine development has advanced to some extent, but almost instantaneously, at least within a very short time, too short a time for us to attribute it to any anatomical condition.

*Dr. McPheeters.*—Is that temporary?

*Dr. G. A. Moses.*—Not necessarily so. It may subside in a short time or it may continue. So far as regards maternal impressions, we have some very curious cases on record, some of which seem to point toward a dependence upon maternal impressions, but they must always be looked upon with a great measure of doubt.

*Dr. McPheeters.*—The specimen presented by Dr. Hulbert is an interesting one, and exhibits rather a rare form of monstrosity. We know very little as to the condition which causes such an arrest of development in the early part of pregnancy as to give rise to these deformities. While I am inclined to side with those who discard maternal impressions as playing any part in the causation of such cases, yet it must be admitted that there are many striking facts going to favor that idea, which cannot be ignored nor satisfactorily explained on the score of mere coincidence. Certainly there is ground to at least partially justify the popular belief on this subject. On the other hand I have met with numerous instances in which mothers have been strongly and painfully impressed with the belief, on account of shocking occurrences during pregnancy, that their children would certainly be deformed, whose

fears were not realized at birth. True, these are only negative facts.

I wish to enquire of the members present as to the frequency with which they have met with imperforate anus in new-born children. In my whole experience I have only met with two such cases, one occurring some fifteen years ago, and the other very recently. In both cases the bowel terminated high up, and death followed as the result of the necessary operation, which, indeed, is the rule under such circumstances. In July last I confined a lady some ten miles in the country, with a large, well formed and apparently perfect male child, so much so that the existing defect was entirely over-looked. The day after delivery, the child's bowels not having been opened (though he had passed water freely), a dose of oil was ordered. On my visit the next day the nurse informed me that there had still been no movement of the bowels, that the oil had been rejected, as well as everything else taken into the stomach, and that the child seemed to be in great pain, having cried almost constantly. On examination I found the abdomen hard and distended, and while preparing to administer an enema as the quickest way to relieve the bowels, I discovered for the first time that there was no outlet to the bowel—no trace whatever of an anus. In order to give the relief which ought sooner to have been afforded, I proceeded at once to operate. Commencing at the point of the coccyx, a forward incision of an inch and a half was made, followed by a careful dissection downwards and along the hollow of the sacrum, using the finger as a guide, as well as to ascertain when the bowel was reached; but it was not until the dissection had been carried to the depth of at least three inches that the distended and closed gut was reached. Whether it was the rectum or the colon I am unable to say. A free puncture was, however, made, and a large quantity of meconium escaped, greatly to the relief of the little sufferer. In this case the bowel terminated too high up to render it possible to bring down its edges and attach them to the external wound, and thus afford a continuous mucous canal. Having no drainage tube with me, the wound was washed out with warm water, and a pledget of oiled lint inserted to prevent adhesion. But little blood was lost; the child, however, more from previous exhaustion from pain, than from the effects of the operation, quietly passed off in a few hours. I would be glad to know the experience of others in such cases.



*Dr. Scott.*—Dr. McPheeter's case reminds me of the only one of the kind I ever saw. It was something similar to the one reported, and occurred in the practice of Dr. Marshall. The doctor delivered a child on 14th and Walnut street, and, supposing it was perfectly formed, he left. As there was no movement of the bowel he ordered that castor oil be given. The next day there had still been no movement of the bowels; the child suffered pain and there was distention of the abdomen. Upon making an examination it was discovered that there was an imperforate anus. An incision was made near the point of the coccyx, the rectum was reached and a large quantity of meconium was extruded. The child lived about 48 hours after the operation and then died.

*Dr. McPheeters.*—How deep was the cut?

*Dr. Scott.*—We found the bowel right at the point of the coccyx without any trouble at all.

The case related by Dr. Hulbert is exactly similar to one that fell under my own observation, and it is the only one I ever saw. I failed to diagnose the case, but it was exactly similar to this case. The child was delivered at full term, and was a remarkably large, well developed child. Now in opposition to the expressed views of the gentlemen who have spoken, and of my teachers, I believe in maternal impressions. I believe that an impression upon the mother's mind does have an effect upon her child in utero. I have had three cases coming under my observation which induce me to believe that it does. The ancients recognized this, because you recollect we are told that the room of the pregnant woman was most beautifully furnished; it was hung with beautiful pictures and statuary; the woman was not allowed to look upon or see anything which was not beautiful during her pregnancy. The Scriptures tell us also of the impressions which were made upon the lower order of animals; you will recollect that a great cattle trader went into that kind of business and swindled his father-in-law by placing reeds at the drinking places during the time of conception; they conceived and had striped cattle. Now, in relation to the cases which I speak of as coming under my own observation. During the war there was a woman who was known as the frog-faced woman; she used to beg up and down Pine street and Olive street and Washington avenue. I lived at 16th and Pine street, and she was frequently at my back gate begging. She had a face almost identical with this one presented here to-night. She carried a blan-

ket over her face so as to hide it, leaving just one eye out. One morning this woman was at the Lucas market, and she was just about to enter the market house, when my patient, who was pregnant, pushed open the market house door, and came face to face with the woman, who had her face uncovered. The patient fell down in a swoon. She was perhaps a month or so pregnant. This woman at the time of delivery gave birth to a child which looked like the frog-faced woman. Now, I believe that this fright had its effect in causing this deformity. Another case, a lady of very delicate temperament, became pregnant. The lady's husband owned a horse which was a great favorite with the family. The horse had been ridden with a saddle which did not fit its back well, and had gotten an ugly sore right on the spinal column—a round ugly sore with a deep hole in it. The gentleman brought his horse into the yard for the purpose of making an application to the sore, and as his wife was very much attached to the horse, she went out and held the halter and watched him, and as she watched, it made her very sick. When her child was born it had a sore exactly like the sore on the horse's back. It was a fac-simile of the sore on the horse's back.

*Dr. G. A. Moses.*—Did you see the child ?

*Dr. Scott.*—Yes, sir.

*Dr. Moses.*—Was it a true ulcer ?

*Dr. Scott.*—Yes, sir ; the child died 48 hours afterwards. My preceptor told me that he once delivered a woman of a child that had a long tumor fastened to its head, which resembled what the common people call the hog's milt—the spleen. That woman gave this history ; she said that her husband killed a hog and had hung it up, and she was holding a tub to catch the intestines, and as the spleen came down it fell upon her and made her very sick, but she paid no attention to it, but when her child was born it had a tumor or a growth attached to its head which the doctor could not detach which had the appearance of the spleen. Now my preceptor believed this was the result of maternal impression, and I do not believe I am alone in this belief. There are a great many things in the practice of medicine which run through the laity before they get to the profession, and it is well sometimes to pay some attention even to the superstitious notions of the laity ; we may learn some important facts from them. I believe the profession is drifting around to the belief that the mental impressions of the mother

do make some impression on the fetus, but the question is how does it do it? This question has not yet been solved.

*Dr. Papin.*—Dr. Scott's report of cases carries out my theory that the woman who looks under the bed every night to find a man will finally find him there. It is not to be wondered that the occurrence of such cases as the doctor has related should make a deep impression not only upon the laity but also upon the professional mind. Were there more such coincidences we might possibly, as scientific men, accept as cause and effect the result of those impressions and the monstrosities arising from them. The remarkable case of the frog-faced woman, although but an isolated fact, would deeply impress one who had not seen much on the subject, as a real cause for a real effect. Now let me relate a case, which occurred in the practice of Cazeaux, who was the most matter of fact teacher under whose tuition I ever sat. A lady very impressible, very nervous, very anxious to have issue—to bear children, for her husband's sake, became pregnant, and it was a source of great rejoicing in the house that she would soon become a mother, at least in a few months. At about the second month of gestation she had occasion to get up during the night and use a vessel; it was dark, and as she sat upon the vessel a rat caught her genitals and bit her severely. She not only fainted, but went into convulsions; and convulsion after convulsion followed each other for several hours, probably several days. She finally entirely recovered, but was so much impressed with the idea that her child would be deformed, that it would have a rat's head, that she urged her physician to bring about a premature labor or an abortion. Cazeaux attended her in her delivery, and a more terrible labor he says he never witnessed, because of the nervous irritability of the patient, but when the child was born it was most beautifully and perfectly formed. Now I place this case in juxtaposition with that of Dr. Scott, and I suppose if I were to run through the literature of the subject I could mention ten cases to his one, ay, twenty.

*Dr. McPheeters.*—Before the doctor sits down, I would like to ask him how many cases of imperforate anus he has met with?

*Dr. Papin.*—Only one, I operated and the child got well.

*Dr. McPheeters.*—How high up did you make your incision?

*Dr. Papin.*—Only skin deep. Incidentally Dr. Boisliniere spoke of the continuous vomiting in pregnancy as a possible cause of arrest of development of the fetus, the woman being starved to



death ; and we might naturally suppose that the fetus would also suffer from want of nutrition, but that is not so. I have seen women vomit for three or four months, becoming perfectly emaciated, and yet give birth to very fat, lively children. But the question with me, and the one I want to bring before the society is as to the vomiting in pregnancy ; not the ordinary nausea which renders the patient unable to eat any breakfast, although she is able to eat something in the day time, but the continuous vomiting when the stomach is perfectly empty, followed by excessive salivation, dropping of saliva from the mouth, until the patient becomes thoroughly exhausted and unable to sit up, unable to do anything, as all of us have seen. Ten years ago there were two notable cases of this kind in this city. One patient was a most charming young woman I ever saw, pregnant for the first time, who finally succumbed to it after the *dernier ressort* of a premature labor had been brought on. At the same time I had under my charge another young woman, also a primipara, who was vomiting incessantly ; at the request of her husband I called in Dr. Maughs and Dr. Boisliniere to see her in consultation. After considering the case very carefully these gentlemen gave it as their opinion that nothing would save the woman but a premature labor. While Drs. Maughs and Boisliniere were consulting about the case, it occurred to me that perhaps the hypodermic injection of morphine would have a good effect, and when they gave it as their opinion that nothing but premature labor would be effectual, I thanked them for their advice, but said : "gentlemen, I will not take it." I told the patient and her family the result which had been reached, and told them to decide what was to be done. The husband was greatly in favor of the abortion but the little woman looked at me wistfully, and held her little hands out to me, saying : "don't let them do it." That was her decision and to her spunk alone she to-day owes her life. I told the family to go and prepare breakfast, assuring them that the patient would be ready for it when it was prepared. I then put one quarter of a grain of morphine under the arm, and when the mother came back with her breakfast, the patient said she felt hungry, and she ate quite a little breakfast ; we gave her some champagne which was to be followed by a pretty good dose of ingluvin and oxalate of cerium. I said to her, you will have a return of the vomiting before night, but don't be alarmed about it, I will stop it again. I went back at five o'clock and found the household de-

moralized. They said : "why don't you produce abortion." I gave her another injection of morphine, which again stopped the vomiting, and I continued this treatment until I found my patient was becoming too fond of morphine, and as the vomiting was overcome, I gradually decreased the quantity used until finally I gave her simply an injection of pure water. She said to me : "how strange it is that the morphine does not have the same effect as before." "That is because I am not giving you any morphine." I broke her of the use of morphine, delivered her of her child and to-day that child represents the value of two million dollars, and I congratulate myself every day that for once, when I was tempted to produce abortion for the purpose of saving a woman's life, I was turned from it by that brave little woman who herself was the victim of the vomiting. And now I question very much the doctrine of abortion for the sake of saving the mother's life. I have perhaps seen as many of these cases as ordinarily fall to the lot of the accoucheur, and I recall only one case where the patient survived the operation.

*Dr. G. A. Moses.*—Dr. Scott has cited some instances in which he supposed that maternal impressions played an important part in preventing the fetal development, and while I do not wish to open a discussion upon maternal impressions, I don't think the matter should be allowed to pass without entering my individual objection at any rate to the theory that maternal impression is at all capable of so impressing the fetus. It is not practicable or possible at least in the light of our present knowledge as regards cause and effect. In a normal pregnancy, if it has passed the period of ordinary formative growth, that is to say, six weeks or six months—I am perfectly willing to go back to six weeks—no impression whatever, produced upon the mother, unless it produces a direct physical effect as regards nutritive change, can produce an effect upon the fetus contained in the uterus, which has no trophic connection whatever with the maternal organism; the connection is by contiguity, formative or developmental force being embryonic, dependent on the mother simply for nutriment, and that it can produce a picture of disease is absolutely impossible. We can not have an effect without a cause, and it is, I believe, impossible for the cause to act under such circumstances. Disease or malformation, or lack of development, such as we have seen in the specimen here, that exhibits itself in the growth—the development—

commences with the ovum of the mother in the Graafian follicle. It is a lack of proper vital stimulus, resulting in imperfect development, and these arrests, such as we have here, take place in the very first weeks of development. If the development is perfect, then any disease that makes its appearance upon the fetus is due either to some accidental intra-uterine disease, or to some peculiar cachectic condition of one of the parents, affecting the ovum, or which, as in syphilis, supplies diseased nutriment, and cannot result any other way. We may have local inflammation occurring under these circumstances; we have many intra-uterine diseases that are very marked without any external impression produced upon the mother; the impression is deeper than the imagination or mental disturbance.

*Dr. Hulbert.*—I would like to ask the doctor whether his idea then is not in a certain degree that this is a question of hereditary influence.

*Dr. Moses.*—To some extent.

*Dr. Coles.*—I think that Dr. Moses has struck the keynote in regard to this matter; the deformity dates from the early stages of the development of the embryo, while it would be utterly impossible for a maternal impression, received late in pregnancy, to produce a particular result. For instance, take the monstrosity which we have exhibited to us to-night; evidently this deformity commenced in the very early days of the formation of this fetus at the time of the division and folding of the germinal layer. You will remember that the germinal layer is divided into three parts, the external, middle and internal. It is supposed the external or epiblastic layer forms a trace or groove which is the foundation of the spinal column; that takes place before the allantois has been formed, long before there is any connection between the fetus and the chorion. So I say this defect must have occurred in the very earliest days of pregnancy. Now under such circumstances, if an impression is communicated which arrests the development, it must occur at or before the formation of this particular part of the fetus. So far as maternal impressions are concerned, I am free to say that I am not prepared to dispute the proposition, nor at the same time have I ever seen any evidence which satisfied me that such a thing could occur. I know that nine out of every ten women who are delivered of a child will ask you whether it is perfectly formed. All women are on the lookout for an imperfect



child and seem instinctively to dread it. Then there is another point which has been but slightly touched upon to-night, that is, the fact that many deformities are hereditary. Dr. Hulbert mentioned the fact that this woman's mother had given birth to an imperfect child, perhaps like this.

*Dr. Hulbert.*—I don't know that. It was called a monstrosity.

*Dr. Coles.*—The peculiarity of web fingers and toes and such things run from generation to generation very frequently. Then there is another point—whenever we meet with a child which has a limb amputated in utero, or rather with a limb missing, we are very apt to find some other imperfection.

It is so in a majority of cases. I remember I read a paper before the St. Louis Medical Society five or six years ago in which I called attention to this fact and detailed a case of a child which had one arm amputated just below the elbow joint, and in which the occipital bone was also missing. Montgomery seems to have overlooked this important fact in his mechanical theory of uterine amputations; he cites a number of cases in which portions of the bones of the head and face were missing in addition to the amputation. I have here in my pocket at this moment a letter from Dr. Z. L. Slavens, of Urbana, Missouri, in which he relates a case that bears on this point, confirming the position I take, that so-called amputations are often multiple in character, and associated with other developmental defects, all of which goes to show that in many of these cases at least, there is a radical cause at work which goes back to the original formation of the embryo. In the case related by Dr. Slavens, the right arm was amputated below the elbow, the left arm just above the elbow; the left leg an inch or so above the knee; the right leg was perfect save that there was a club-foot. This child also had cleft palate. It died of phthisis, at the age of four and one-half months. There was no hereditary taint in the family other than consumption. Another important fact in connection with this case is, that a few years since the same mother gave premature birth to an acephalous fetus. I am convinced that the term amputation, as applied to many of these cases where portions of limbs are wanting, is misleading as to causation, and in fact a misnomer—the condition being due to an arrest of development, and is, as I have said, very frequently associated with palpable defects in other parts of the body. We may not be able to state the exact cause of a given malformation, but we can

generally determine the method by which most of them have been produced, and in this way convince ourselves that the imperfection of the embryo must necessarily antedate the particular natural impression to which it is attributed by the laity. Superstition retreats before the light of science.

*Dr. Previtt.*—I had listened to the remarks of the gentlemen with a great deal of interest, but I am not entirely satisfied with the arguments which Dr. Moses has used that it is impossible for these things to occur. In the first place it seems to me that two sets of conditions have been confused, namely, hereditary conditions—the features and mental peculiarities are undoubtedly inherited, and we do know that a great many other things are inherited. I had my attention called to this fact a few days ago when I saw a patient who had six toes and six fingers; the father of this patient had an extra finger and toe, also the grandfather and several children of the same family. It was certainly hereditary; that is an impression which is stamped upon the ovum, just as a feature is impressed upon the ovum, it is not a mental impression in the ordinary sense. What the father transmits as peculiar is not transmitted by a mental impression, it is an impression which the ovum carries with it along with the formative force that develops the child. But there are conditions where we have certain effects produced seemingly as the result of mental impressions that it is very difficult to get around. Now the deformity in the case related by Dr. Scott certainly was not the result of heredity—it certainly can not be claimed that the sore on the child's back was the result of any hereditary tendency. Some months ago I recollect seeing a report of a case in one of our medical journals, in which a patient was burned very badly; and when her child was born it was found to be marked exactly the same as the mother—this occurred at Bellevue Hospital—and the scars on the child's body were exactly similar to those on the mother. This may be a coincidence, but it is certainly a very marvelous one, and so many of these coincidences occur that I don't see that we can ignore them. We may some day reach some theory that may be satisfactory. Because we cannot explain a thing, is no argument that it is not a fact. Dr. Scott has referred to the case of Jacob and his method of producing stripes on the animals. That seems to be a well authenticated case when the mental impression did have some influence. But a case like that of Dr. Hulbert does not depend upon mental impression; the

fact is that it is simply an arrest of development, and as Dr. Coles has stated we have here a germinal layer—the external layer covering over this middle layer, dipping back upon this, so as to fold the spinal cord and we frequently have a partial arrest of development leading to what is called spina bifida. In this it is complete. I agree with Dr. Papin that the partial starvation of the mother would not produce such a deformity as this; it might produce a general emaciation—a general malnutrition, but I cannot conceive that it would cause such a deformity as we have here. I admit the difficulty of our appreciating that sort of thing called mental impressions. It seems to have some sort of weight because the child certainly receives its impress and formative force from the mother and father at the time of conception; which starts it upon its independent career; it derives its nutrition from the mother, but it is a nutrition by osmosis as it were. So far we can understand, if the nutrition necessary to sustain and develop that child could be furnished from any other source than that of the mother, or if in any special way the nutritive material necessary to the development of that child could be furnished independently of the mother, it would go on to perfect development independently of the natural source of nutrition from the mother. That there is a nervous connection between the mother and the child we all know, but how far the nutrition of the child may be influenced by any mental impression of the mother through the nervous system we do not know, and we certainly can not explain it. There is not a tissue in the body which does not have nerves, and they have been demonstrated in the cord as well.

*Dr. McPheeters.*—How many cases of imperforate anus have you seen?

*Dr. Prewitt.*—I have never seen a case; they are very rare, much more rare than any other variety of imperfect development.

*Dr. Hulbert.*—In Ziegler's Pathological Anatomy this subject is discussed, and he seems to be very thoroughly convinced of the fact that the period of deviation of these malformations can be positively determined; that there is no question about it. He takes the position that after a part is once formed, any differentiation, even back to the time of segmentation of the ovum, if the ovum goes sufficiently far to result in differentiation, the differentiated part will continue to develop, and that if any change occurs subsequently to that in the part, it is simply a question of atrophy or ar-



rest and not an absolute obliteration of the tissue. As far as the formation of the skeleton is concerned, I can not conceive how, after a part has been formed, it could completely disappear. To my mind it is evident that the deformity here found occurred at least not later than the third week; as to what the influence was, I do not know. Now as regards mental impressions, I believe there is something in it. I don't know that I can explain it; in fact, I am satisfied that I can not; but certainly coincidences and many facts lend color to the opinion that the influence amounts to something. I believe that there is a nervous connection or an equivalent between the mother and child, besides the vascular; and while I may not be able to demonstrate its presence in the cord, or in the uterus at the placental site, still there is one fact that stares us in the face, and that is, that every individual part of the organism, in the woman who is pregnant, undergoes nutritive change. I can not conceive of that occurring without an influence of some kind. It may not be through nerves—differentiated nerve tissue; it may be the influence we see in the original protoplasm. It is there though. It is a condition or a state of affairs which is able to carry impressions or influences which will affect the nutrition of the individual

*Dr. Scott.*—Why not through the blood?

*Dr. Hulbert.*—I think that is jumping too far. There is something back of that. Blood is simply the medium of exchange for nutrition.

*Dr. Scott.*—It has never been demonstrated that there are nerves in the cord.

*Dr. Hulbert.*—I do not say that it has. But it is not necessary that they should be demonstrated in order that we may assume it is so; nor does it follow that because we have not seen nerves in the cord, there are none. All influences bearing upon the ovum before the moment of impregnation must be referred to that which we denominate hereditary. This influence coupled with those subsequent, determine the fact of a perfect or imperfect organism. According to the number of times a certain part varies, either in excess or want of development, in like accordance is the certainty of this variation, again presenting itself. It is very manifest from the facts in our possession that no one influence, cause or accident, can account for the manifold variations from the normal which we know occur. We can determine from the above position the pe-

riod of time at which 'the influence produces the result. Beyond this, there is no certainty as yet. The probabilities point strongly to hereditary, mechanical and mental influences as potent factors in the etiology.

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### MEDICO-CHIRURGICAL SOCIETY.

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Stated Meeting September 20, 1887. DR. DALTON in the Chair.

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*Dr. Love* read a paper on (Vid. COURIER for Nov. 1887)

#### ERYSIPELAS.

*Dr. Fry* questioned the statement that ergot acts simply as a local astringent. He thinks it acts also as a protective coat particularly if you take time to lay on coat after coat. It is grateful to the majority of patients, particularly in cases of facial erysipelas where they complain of a drawing feeling.

Some four or five years ago he had seen a case at the City Hospital where some large flies and numerous larvæ were removed from the nose of a patient suffering from severe facial erysipelas. The mass was nicely prepared and put on exhibition at the City Hospital at the time. Recently he had noticed a rather full account of flies having been found in such a case. The author described them had placed them entomologically in the class to which they belong—and he seemed to think that they were a frequent cause of facial erysipelas. He had seen several cases of facial erysipelas, two particularly at the City Hospital, where the beginning of the whole trouble seemed to be about the nose, as though there was internal trouble, congestion of the mucous membrane apparently, and they complained of a great deal of pain at the bridge of the nose. One of these patients when he had high temperature, broke out of the hospital on a cold winter's night clad only in the long shirt that is furnished to patients, and ran for ten or twelve blocks before he was brought back. The next morning he was very much better and in two or three days was apparently well.

*Dr. King* thought that in view of the various functions of the liver we should appreciate the importance of mercury. Aside from the peculiar bile-making function of the liver it stands as a modifier, as it were, of the alkaloids, known as ptomaines and leuco-

maines, which if allowed to remain in the system without being affected by the peculiar function of the liver will poison the system. In this peculiar condition of the system produced by the poisonous effects of these alkaloids we have a congestion rather of the gastro-duodenal track that mercury of itself will correct. Mercury does this principally by expelling the bile, arousing and secretion and properly eliminating the poison from the system. He believes that in mercury we have a very valuable remedy in the treatment of erysipelas, not only the mild chloride but the bichloride. Benzoate of soda he was inclined to think too depressing, and substitutes the benzoate of ammonia, believing it really serves to sustain the flagging powers and at the same time tends to produce a proper elimination. Pilocarpin he considered a most admirable remedy. It not only produces a soothing effect, but has a direct eliminative effect, acting upon the sweat glands in such a way as to eliminate the poison. This disease requires a thoroughly supportive treatment; we must build up the nerves and build up the blood. By proper attention to these points we have been enabled to better control this disease, and we do not now necessarily have the same fatal results in the treatment of erysipelas that we had in former times.

*Dr. Love* asked whether the fluid extract of ergot is still employed at the hospital in the treatment of erysipelas.

*Dr. Dalton* said when he went to the hospital he found the fluid extract of ergot in use and the results were so good that he had not changed it.

*Dr. Homan* said *Dr. Love* in his paper suggested a specific organism as the cause of the disease, locally introduced; then again he used the term "when the disease becomes constitutional," and stated that then certain remedial measures are to be adopted. He would like to know at what point it becomes constitutional; also what effect a local application of carbolic acid as an antiseptic or germicide could have on these organisms where the skin is unbroken.

*Dr. Grindon* said that it seemed a little strange in an affection that we all know as well as we do erysipelas, that there should still be some doubt apparently as to the diagnosis in certain cases. In an article on this subject in *Holmes' System of Surgery* the writer even went so far as to speak of such well marked forms as erythema nodosum, and even describes the ordinary finger nail roseola that is



liable to occur as a symptom of so many different conditions. And the writer also seems to allude to one form of erythema which, if it has received a name, certainly seems to exist rather as a vague condition in the minds of most of us, yet all have seen instances such as this; a patient comes, saying he feels in his ordinary health and spirits with no acceleration of the pulse, no fever apperçiable to the touch and no pain, but about the face, on one side, perhaps only upon one cheek, a condition that looks very much like erysipelas. There is edema, a flushed purple appearance, with a less sharp line of demarcation, and the edema of a less permanent nature than in erysipelas. The trouble lasts not more than two or three days, and passes off pretty much as it came, with very few signs of constitutional trouble. These cases are very much like erythematous eczema, yet can be distinguished from it. This is what is sometimes included under the name of simple erythema, as one of the things that may be mistaken for erysipelas, he wished that gentlemen who had seen cases of that sort would tell just what they think those cases are.

All the time he was at the City Hospital ergot was used in erysipelas and he was much pleased with it. He thinks with Dr. Fry that it is quite a protection, acts upon the vaso-motor organism of the part and is of considerable importance in facial erysipelas. Erysipelas located elsewhere is not quite as serious a matter as on the face, for we can control its manifestation. To control the local manifestation of facial erysipelas is an important matter. He had had considerable experience with pilocarpin, and had used a great deal of it hypodermically. He don't think there is much to be apprehended from its depressing effect. He gave it in cases where there was a great deal of fever, he thought he was the first to use it in small-pox and he found that within a few minutes after introducing it into the system, using usually one fifth of a grain, the pulse would rise for three or four minutes 20 or 30 beats and there was a very copious perspiration. There is a profuse salivation and depressing effect to some extent, but this passes off within fifteen minutes. He made it a practice to carry a solution of the sulphate of atropia, so as to use that as an antidote if any depressing effect occurred, but he did not remember ever having to use it. He had never used it in erysipelas, but would think it an excellent remedy. One thing to be borne in mind in its use, apart from its depressing effect, is the occurrence in facial erysipelas of

edema of the glottis, from which patients sometimes die. As pilocarpin increases salivation, so it would seem that this might cause a swelling of the mucous membrane. After giving the patient a hypodermic injection he had found an edematous condition of the mucous membrane, and he thought that in one case where there was a tendency to edema of the glottis he rather hastened the fatal issue; and the same thing might occur in erysipelas.

*Dr. Fry* said he had seen three or four cases of the erythematous affection referred to by *Dr. Grindon*. He had at first supposed that he had to deal with facial erysipelas, and was surprised not to find more constitutional disturbance. In one patient, an elderly lady who was subject to it, he saw twice almost the whole face look very much like an attack of erysipelas, when there was absolutely no fever, although it had been pronounced facial erysipelas by other physicians in several previous attacks. In another case of a young man there was swelling of the skin or edema about the nose and eyes which disfigured him very much; and yet there was absolutely no inconvenience except from the appearance of the thing, and it passed away readily. There was no exfoliation of the skin afterwards.

*Dr. Grindon* remarked that glandular swelling of the neck and especially of the glands of the facial artery seems to be almost pathognomonic of erysipelas, so that some writers say that a man who is taken with a severe chill, with marked febrile reaction, with swelling of the glands of the neck and especially of the glands of the facial artery, it may be set down as a case of erysipelas even before any cutaneous manifestations are present, but in this other affection there is no glandular enlargement.

*Dr. Tuholske*.—There is to-day no longer any doubt as to the cause of erysipelas. The bacillus of Fehleisen is a demonstrated fact, demonstrated by the pure culture, and he had seen Fehleisen inoculate with the ninetieth generation of the pure culture and produce erysipelas. He had seen him do that for the relief of certain conditions of the skin, not amenable to curative treatment—some lupoid troubles. It was sought by the invasion of these bacilli to cure the chronic trouble. Erysipelas does not now occur unless there be present some of the Fehleisen bacilli. The question whether it occurs always upon the derma is still in doubt. A good many now claim that through the most minute openings in the mucous membrane not readily discernible to the naked eye the bacilli

may be deposited and multiply and give rise to the disease. When the disease gets into the skin it does not spread to the blood vessels but follows the interstices between the fibres of the cutis, along the lymph channels and progresses as a rule toward the centre of the body. Sometimes it does not do so. In a case seen with Dr. Epstein for a time the diagnosis was in doubt because the disease would travel differently, but as a rule it does travel toward the lymph centres. It has a peculiarity in its spreading; we never see a smooth even margin, but there are peculiar spots like peculiar lymph spaces. Another peculiarity is a tendency to go within, and involve certain cavities. The vast majority of cases of erysipelas would get well without any treatment. Of course, knowing that the disease is due to a bacillus, that remedy is the remedy *par excellence* which will destroy the bacillus, which remedy is carbolic acid. Applied to the skin, it acts not only upon the dermis, but penetrates into the tissue without doubt. The application of a two or three per cent solution of carbolic acid on cotton to the part and covered with oiled silk will probably be the best. Billroth uses carbolic acid in this manner; he also applies it hypodermically, and if the erysipelas has a tendency to spread, he injects the carbolic acid beyond the territory involved, in order to prevent the migration of the bacilli, just as it was formerly attempted to prevent the invasion of new territory by painting with the nitrate of silver. Tincture of chloride of iron was, not long ago, considered a sovereign remedy. Then the do-nothing treatment, simply covering the part with absorbent cotton, was in vogue; then ergot, then pilocarpin, but I don't think there is anything that equals the application of carbolic acid. He knew something of erysipelas outside of what he had read and what he had seen. At the dispensary in 1870 he had it five times. He weighed 108 pounds, then, and was in very poor health. He was confined in a miserable place, and whenever a patient came in with erysipelas he was sure to catch it in a short time. It would start and run to a certain distance, and then depart; and one remedy seemed to have about as much effect as another. The worst cases of erysipelas are those which are violent from the very beginning. The disease is then fearful to combat.

*Dr. Love.*—That in persons who have had erysipelas with a tendency to repeated attacks, those repeated attacks are generally mild, showing a sort of inoculation from which it would be easy to



come to the conclusion that the disease is self limiting. But from the dangers which may occur he thinks it is under all circumstances so dangerous a disease, that we ought not to trust to the self-limiting powers of the disease. Every disease is affected very largely by the conditions which surround it. When we read the articles of some writers about diphtheria in certain countries, we form the opinion that they are writing about another disease from that with which we are brought in contact here. So with regard to erysipelas, the testimony of observers in different portions of the world should be received with some allowance. His observations had been that erysipelas is a serious disease. The question which Dr. Homan asked in regard to carbolic acid, had been answered by Dr. Tuholske. The question as to the time when erysipelas becomes constitutional, when it ceases to be local and becomes constitutional, is one which might also be asked with regard to diphtheria, with regard to syphilis, with regard to all the infectious diseases. There can be no doubt of their dependence upon a specific micrococcus, and that in each and every case the disease must at first be local—that the point of infection must be some exposed point, which may be hidden to the naked eye, and it is difficult to determine when the disease ceases to be local and becomes constitutional. It depends very much upon the condition of the patient and the virulence or possibly the number of the micrococci.

Among local applications, ergot has been referred to by Dr. Fry as more than a local astringent, forming a covering. He would grant that, but it has no antiseptic properties and therefore carbolized lint has the advantage. In every instance where he had discontinued the soothing, carbolized, oleaginous mixture and applied ergot, his patient had protested that the parts felt dry and drawn and uncomfortable, generally unpleasant, and from the standpoint of comfort, which is a very important one, the application suggested is to be preferred. The remedies suggested, benzoate of soda, pilocarpin, etc., are of course depressing. The effect of these remedies must be watched, the same as in the administration of other remedies. We must be familiar with the idiosyncrasies and susceptibility of the patient, and of course in applying the remedy, we must do it gradually, and as this disease is essentially asthenic, he had always given stimulants as part of the treatment and as antagonistic to the depressing effect of the other remedy. He thinks stimulants important in all infectious diseases. It is an

important point also that the remedies be given in large quantities of water, because there is no better stimulator of the glandular system than water, it washes out the clogged up ducts and sluices.

He don't believe people in health get water enough. Mercury he regards as one of the most valuable remedies as a stimulator of these glandular organs, in small doses frequently repeated, and its antiseptic or germicide properties are not to be ignored by any means. Digestion also is dependent upon secretion by the glandular system.

In this disease, as in all others, what we want is to make our patients comfortable. We want to meet and treat certain symptoms that may develop, to control the fever, but above all to clear out the system, to prevent the secretion of fetid matter, the products of disease, the ashes of combustion, and guard against the reabsorption of the waste products and blood poisoning dependent thereupon. *Apropos* to that point, he thinks it a mistake to wait three or four days to move the bowels after confinement. He believes in purging the patient immediately before confinement and within an hour after delivery. There has been an accumulation of fetid materials of the mother and child which should be gotten rid of. One point referred to was the fact, that in certain cases there is an erythematous condition, almost going to the point of the erysipelalous blush and yet not being such. He thinks this is allied to urticaria in that it is dependent on reflex disturbance of the stomach. The gravid condition of the skin in erysipelas is very largely influenced by the condition of the stomach. In the majority of cases there is a very irritable stomach, and, as this is the case when we have a very violent local condition of the skin, we should direct our attention to it.

*Dr. Wall* said the effect of ergot is not that of a mere astringent such as we ordinarily see. Vegetable astringents act directly upon the muscular tissue. This acts through the vaso-motor nerves. The assertion that ergot is not an antiseptic is possibly a little too radical. There are no two men who have ever investigated the ingredients of ergot, who agree as to what it does contain. We don't know to-day what are the active ingredients of ergot, and every analysis of it is different. It is very possible that there are substances contained in ergot which have an effect which we can not at present explain. The evidence given by those who have used it is that it is valuable in erysipelas. Why he could not say, but

to assert that it has no antiseptic property is going a little too far in the light of our present knowledge.

*Dr. Tuholske* in answer to a question from *Dr. Homan* said he could not tell what strength of carbolic acid is fatal to the *erysipelas coccus* but a three per cent. solution applied endermically seems to be so.

#### PHOSPHORUS NECROSIS.

*Dr. Tuholske* presented a specimen consisting of the better portion of the upper jaw from a girl twenty-two or twenty-three years of age. There was a necrosis of the upper jaw from phosphorus poisoning. The girl had been working in a match factory for a number of years. When sent to him, nine or ten months ago, she was in a very poor condition, and looked as if she would not bear an operation. He thought then there might be some amyloid degeneration from the long suppuration that had been going on. Her mouth was full of filthy pus; then too there was no line of demarcation and he thought if he operated then he might remove too much or not enough, so he determined simply to combat the symptoms. He removed a tooth and some of the alveolar process, some pieces of necrotic bone, washed out the parts and introduced between the mucous membrane and the bone small pledgets of very thin absorbent gauze; the meshes he thoroughly filled with iodoform, telling her to come to the clinic in a few days. When he next saw her, her mouth was cleansed, the mucous membrane raised and iodoform introduced, and she commenced to pick up; the fever stopped, her appetite became normal: so he did not hasten things at all, but attended to her in that way until something like three months ago, when he noticed that two of the teeth were out and that he could raise the mucous membrane pretty high. He came to the conclusion that as he was able to move the jaw fairly, he might remove it. He put the girl on the table on her back with her head over the edge of the table, low down, and commenced to manipulate, and found that he could remove the jaw without giving her an anesthetic. He raised the mucous membrane and its appendances, just pulling it off the jaw, and then took out the bone with his fingers. It was not necessary to ligate any arteries, there was no considerable bleeding, the vessels being controlled by pressure; and after dressing the mouth the girl went home. This was on Saturday. On Monday she came back to the clinic and



he found that there had not been much disturbance. That bone had been in there long enough to be a source of irritation further up and he thought there might be some further suppuration. The girl was not at all good looking with that bone out, still she was not terribly disfigured, but she had put in a lot of skeleton work to keep up part of the nose and make the face look fairly well. The interesting points about this specimen are that it is a necrosis of the upper jaw, and secondly its removal without the use of instruments, simply by taking hold of it with the fingers. He had never seen phosphorus necrosis of the upper jaw before; but had seen one or two cases in the lower jaw. It is more frequent in the lower jaw. It is said to be due to the phosphoric acid getting into some carious tooth. This trouble is said to be less frequent than formerly, because, instead of using the red amorphous phosphorus which was formerly used, the yellow preparation is now used.

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Stated Meeting, October 18, 1887, DR. MULHALL in the chair.

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#### TUMOR OF LIVER.

*Dr. Dalton* presented a specimen taken from a case of tumor of the liver. *Dr. Bremer* examined some sections and was of the opinion at first that the tumor was a sarcoma, but on more careful study of them was inclined to think it a myxoma. The patient was 50 years old and came to the hospital October 5, with a history of chronic dysentery. The post-mortem revealed old cicatrices in the large intestine and some recent ones, and in the liver.

#### SOARING OF BIRDS.

*Dr. Todd* presented a specimen belonging rather to comparative than to human anatomy. It illustrated the peculiar manipulation of the wings of some birds which enables them to soar. Soaring is quite characteristic of the buzzard, for instance, and also of the white pelican from which this specimen came. This motion is apparently attained without exercise of force at all, and it has been a question how these birds accomplished this motion. No movement at all is seen by the naked eye, yet the bird soars by the hour up and down where he pleases; there is no flapping of the wings and there has been no satisfactory explanation of it. *Dr. Todd* had made a dissection of the muscles of this wing with a view of demonstrating a peculiar motion of the wing, having discovered a play of muscles

which he thought explained this motion. The quill feathers at the end of the wing have a spiral twist, which reminds one of the blade of a propeller. The wing of the bird corresponds to the hand of the human being. Dr. Todd indicated the analogue of the thumb, the wrist and the first phalanx, the bird having a thumb and a first and second fingers. By making alternate traction on two tendons which he had dissected out he showed that the action of the muscles causes a movement of the wing which corresponds to the twist of an oar, as when a man stands up and with a single oar propels the boat by a sculling movement. His theory is that by these little twists it propels itself through the air.

*Dr. Ravold* said he had lain on his back and watched buzzards very often, and never was able to see any such motion; the only thing which seemed to indicate that there was any motion was the whistling of the wind. However, in a gale of wind, blowing very hard, you will see these birds fly at an angle of thirty-five degrees and go at a tremendous speed directly against the wind.

*Dr. Hulbert* read a paper on

#### DIVULSION OF THE CERVIX. (Vid. p. 400.)

*Dr. Nelson* said he had long thought that the mechanical theory of dysmenorrhea was an exceedingly difficult one to sustain, the difficulty lying just as Dr. Hulbert had pointed out in the paper just read. While in normal menstruation the amount of blood that passes from the uterus is such as can readily make its way through an extremely small and contracted passage, we almost never find the contraction in morbid specimens such as to prevent the flow, even if a much larger quantity than ever passes in a normal condition is found. And it is to be noticed further that dysmenorrhea and menorrhagia do not ordinarily occur together. When there is an excessive flow, where there would seem to be a liability to special difficulty on account of a large quantity passing, those cases are almost always entirely free from pain. Cases of dysmenorrhea are almost invariably accompanied by a small flow, and that being the case, it had always seemed a fallacy to suppose that mechanical dilatation accomplishes the result claimed for it simply by opening the passage and allowing the escape of the fluids from the cavity of the womb itself. That good is accomplished by the use of dilatation by means of these steel instruments he thinks there is no doubt. That the operation has been performed in a

great many cases where it was unnecessary and that the result of the performance of the operation has been injurious to the patient upon whom it was done is unquestionable. In many cases, the explanation of the benefit which follows the application of force in this way to the endometrium is to be found in the pressure that causes a change in the nutrition of the mucous membrane, and possibly in that way, perhaps in the way of counter-irritation, perhaps in the way of some other modification of nutrition which we can not so readily explain, brings about a different and more healthy condition of the endometrium, and therefore a more natural function of menstruation.

*Dr. Fry* asked what is the prevalent or accepted explanation of the fact that often there is dysmenorrhea at the commencement of menstruation, a fact of general observation. Often patients, and perhaps more particularly virgins, complain the first day of menstruation, or just before the flow shows itself, of pain. Now what is the general or most accepted explanation of that pain. He had noticed this when there was no clotted blood passed, when the flow was very thin and clear.

*Dr. Hulbert* said the cause of that form of dysmenorrhea can possibly be traced to the condition of the nerves, possibly to the condition of the endometrium which is abundantly supplied with nerves. It certainly causes a great deal of pain where there is catarrhal condition of the mucous membrane of the endometrium. The passage of the sound in these cases, particularly at the site of the internal sphincter, causes most acute suffering. The very fact that there is so little discharge of blood in these cases, and generally there is more or less leucorrhea, would seem to indicate a modification of the nutrition of the endometrium. Menstruation does not take place normally, and this is unquestionably due to the constitutional condition of the patient. He holds that the general condition of the patient is the key to disease of women.

*Dr. Mulhall* asked if *Dr. Hulbert* had ever used *pulsatilla* in dysmenorrhea.

*Dr. Hulbert* said he had used the remedy in cases where the local expression seemed to be in the mucous membrane. The remedy seems to be directed to all the mucous membranes of the body, not only of the uterus. In some cases it acts very nicely in stopping the discharge, the leucorrhea, but when the remedy is discontinued if it is for only a short time, the leucorrhea returns. It does not seem to have any permanent effect.



*Dr. Nelson* said in connection with the point just introduced, the matter of medical treatment of these cases of dysmenorrhea, and especially that form of dysmenorrhea which is commonly called mechanical dysmenorrhea, he would like to call attention to a remedy which he had used in a number of cases with very considerable success, and which he thinks has been too little noticed, that is *viburnum opulus*. There has been a good deal written about *viburnum prunifolium*, which is a very valuable remedy, not only in the treatment of dysmenorrhea, but as a remedy against threatened abortion, but in his hands better success has attended the use of *viburnum opulus* than *viburnum prunifolium*. He had had patients take the *viburnum opulus* with great advantage while their stomachs would reject the *viburnum prunifolium*. The *viburnum opulus* is given in very much smaller doses, from ten to fifteen drops has the same effect as a teaspoonful of *viburnum prunifolium*. It may be given in from ten drops to a teaspoonful dose, but a teaspoonful is not generally needed. He had had several cases in which he was satisfied that pregnant women have been enabled by the use of the *viburnum opulus* to carry their children to full term who would have miscarried otherwise.

*Dr. Hulbert* said all that family of remedies is very valuable in the treatment of this condition, dysmenorrhea particularly, where the difficulty seems to be in the development of spasm. They are antispasmodics. He had used *viburnum opulus*, *viburnum prunifolium* and *dioscorea villosa*. About two years ago the use of *prunifolium* was quite extensively discussed in the journals of obstetrics, and its use was urged in cases of threatened abortion, in which there was any irritable condition of the uterine body, a certain low form of suffering, discomfort, pain, tenderness, and very excellent results have been attained with the use of the fluid extract of *cimicifuga*. Antipyrine has been very favorably mentioned in these conditions, its influence being attributed to the lowering of the pressure.

In regard to the matter of rapid dilatation, the reports that have been made in regard to it have not been such as to enable us to determine the results. For instance, we don't know from the reports the degree of dilatation, the force used, the resistance, etc. Many cases of dysmenorrhea exist in which apparently this operation is demanded and in which unquestionably a medium or large sized dilator can be introduced. In those cases we generally find a re-

laxed condition of the cervix, and it is possible in a case of that kind to get dilatation to quite a considerable extent and still not pass the physiological limits of the sphincter. Of course there is no damage done in a case of that kind; there is no solution of continuity, and the result is good, but until these cases are reported more accurately, we are not in a position to judge of the operation.

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CEREBRAL HEAT CENTRES.—In summing up the results of an extensive series of experimental investigations, Dr. Isaac Ott and Mr. W. S. Carter state the following conclusions :

1. There are four cerebral heat centres, located (1) in front of and beneath the corpus striatum ; (2) the parts on the median side of the nodus cursorius ; (3) the parts about Schiff's crying centre ; (4) the anterior inner end of the optic thalamus.

2. These centres are exciting or inhibitory according to the kind of impulses sent into them by the peripheral nerve endings.

3. The respiratory and circulatory changes induced by the puncture have not any effect upon the course of the temperature generated by the heat centres just mentioned.

4. The puncture into the thermo-taxic centres either partially removes their inhibition on the spinal thermogenic centres, or causes them to become exciting centres, acting in conjunction with the spinal heat centres, and thus generating increased chemical metamorphosis of the tissues and heightened temperature.—*Therap. Gaz.*, Sep. 1887.

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THE MEDICINE OF THE TALMUD.—Some few months ago we called attention to a proposal from Dr. Carl H. von Klein, of Dayton, O., to translate and publish the portions of the Talmud which refer to medicine providing a sufficient number of copies shall be subscribed for to warrant the undertaking. He estimates that it will take three years of close work to prepare the volume which will make about 500 large octavo pages, and the price will be \$5.00 payable on delivery. Of the one thousand subscriptions necessary, about five hundred have been received. All who desire to have a copy of the work should send their names to Dr. Klein at once.

## COMMUNICATION.

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### LACERATION OF CERVIX AS A CAUSE OF ABORTION.

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NEW YORK, Nov. 14, 1887.

EDITOR COURIER.—In the ST. LOUIS COURIER OF MEDICINE, Nov. 1887, appears a communication from Dr. Bevill, enclosing a letter from Dr. Paul F. Mundé on the subject of "Laceration of the Cervix Uteri as a cause of Abortion."

It would appear that Dr. Mundé appropriates to himself the discovery that abortions are apt to be occasioned by laceration of the cervix uteri.

If these gentlemen had taken the trouble to refer back to the lectures of Dr. Tyler Smith, of London, edited by the late Dr. Alex. Gardner, of New York City, and published here, and regarded as the text-book for at least a decade, and still equal to many more modern works—they would have noticed that Dr. Smith clearly sets forth, and Dr. Gardner endorses all that Dr. Mundé implies to be original with himself.

This re-discovery of something formerly well known seems to be a popular method—with some—of acquiring a reputation, especially among so-called gynecologists.

Even the speculum has been through the ordeal of having been discovered, lost and re-discovered several times within the history of medicine, as is well known.

Resp. Yours,

231 W. 23d Street.

WALTER S. WELLS, M. D.

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JOURNAL OF MORPHOLOGY.—Messrs. Ginn & Co., of Boston, New York, and Chicago, announce a journal under the above title, devoted to embryological, anatomical and histological subjects, to be issued in the best style, with elaborate lithographic plates. It will be crown octavo, two numbers each year with 100 to 150 pages each, subscription price \$6 per annum, single numbers \$3.50.



## SELECTION.

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### THE TREATMENT OF THE FINAL STAGES OF PHTHISIS.

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BY J. H. MUSSER, M. D., *Physician to the Philadelphia Hospital, Blockley.*

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*Read at the meeting of the American Climatological Society, Baltimore, 1887.*

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The treatment of phthisis is of the most intense interest to the busy practitioner. No discourses in medicine are received with more avidity than those which detail a new method for the treatment of consumption, or hurl forth a new specific for its cure. The reason is obvious. But it is quite true, also, that a very large, indeed, too large a share of the monographs deal with the incipient stage of phthisis, and leave the treatment of the final stage to be evolved from the more or less limited experience of the practitioner. In fine, it is too often forgotten that we must alleviate suffering as well as cure disease. The burden of the subsequent, without a doubt most trite, remarks applies to the treatment of the final stage. Neither the first, nor the second, nor the third stage in its entirety, will be considered; only that portion of the third stage which precedes the finale. The racking torment of the beginning has passed; the dreadful anguish of the middle period is gone; the third period is fast waning, and that slowly creeping march of suffering and forbearance, filled with the inspiration of hope, has begun, to end only in the grave.

What are we to do in these final hours of suffering? Are we able to meet the demands upon us? Is the profession sufficiently taught to administer to the comfort of these afflicted ones? In vain does one look to the monographs and journals for suggestions; no words are uttered in the lecture-room; for aught we gather from medical literature the care of the patient dying of phthisis devolves entirely upon the nurse. Those of us who are hospital physicians

alone can scarcely appreciate the mental anxiety and emotional distress of him who daily administers to the wants of a patient, too often a friend, dying of this disease. It is easy for the *chef* to leave such duties to the interne or the nurse. Quite different, however, for the family practitioner. In these cases above all others the powers of the true physician are beautifully displayed. Here it is that the exercise of the high and holy qualities typified of old by the Master Physician are essential.

Yet, withal, a thorough knowledge of therapeutics is required for the pain that is here, and the ache that is there; for the cough of to day, and the laryngeal spasm of to-morrow; for the dyspnea of manifold causes; for the vomiting in the morning and the retching at night; for fever and sweating; for wakefulness and sleep; for the thousand and one ills—to relieve which the physician must have a mind fertile of expedient, and abundant of resource.

The suggestions regarding the management of the late stage of phthisis are derived alone from the writer's personal experience: much more profitable though it would be, time prevents detailing the experience of others.

*External symptoms.*—For the relief of erythema from pressure and moisture, remove the cause, if possible, apply astringent lotions and drying powders. The extract of hamamelis diluted, or the aqueous extract of the shops, borax and alcohol; the latter alone; sulphate of zinc, twenty grains to a pint of water; alum and water; carbolic acid (ten drops) in water (Oj); or alum and alcohol carefully applied, is grateful and remedial. Starch, rye flour, fullers' earth, oxide of zinc, subnitrate of bismuth, iodoform and starch, are drying powders, named in the order of cheapness, that are efficient. For painful erythemata, iodoform, oxide of zinc, and subnitrate of bismuth with starch in combination, answer well.

Iodoform	-	-	-	-	-	-	-	-	1 part.
Zinc	-	-	-	-	-	-	-	-	2 parts.
Bismuth	-	-	-	-	-	-	-	-	2 parts.
Starch	-	-	-	-	-	-	-	-	4 parts.

A saturated solution of iodoform in ether, applied every day, or every other day, seems to relieve pain and remove congestion. A mixture of iodoform and surgical collodion relieves pain quickly. One must not forget the conventional soap-plasters, while glycerine applied frequently is also of service. Ointments of iodo-

form, or of zinc, with the extract of opium or belladonna, are often necessary. For bed-sores remove pressure, and apply, by dusting, iodoform, Peruvian bark, oxide of zinc, or subiodide of bismuth. Oakum saturated with balsam of Peru is often excellent. Surgical principles will guide in the treatment of exceptional ulcers.

Edema of the legs is frequently most distressing; bandages and elevation of the limbs are required. The swollen legs are the seat of a very painful erythema; here again, sedatives, as laudanum, and lead water, or hamamelis, are required. One of the easiest prepared and most soothing applications for any edematous erythema is the so-called starch poultice; ordinary starch mixed with water to the consistency of thick cream, spread on linen, and applied.

Apart from the usual pains in the thorax, the patient suffers from general aching and soreness, and from local areas of pain. Rubbing with stimulating applications, alcohol, soap liniment, arnica, chloroform liniment, or with dry heat or applying hot flannels, are necessary. Local pains may be relieved if in the course of the nerves, or in the extremities, or where undue pressure has been exerted, by *cannabis indica*; *landanum* may also be used, but is inferior in value; *lanoline* is a good vehicle for any substance. Plasters are not generally pleasant, *belladonna*, *opium*, and soap may be selected.

Chest pains are usually severe. Use dry heat, by means of hot cloths, hot plates, or hot water bags, or sinapisms, or rubefacient liniments. Pain in the epigastrium and about the heart often occurs in the last week, and is most horrible; dry heat is the most serviceable of external applications. The pain appears to be due to tension on the adherent pleura by collapsing or contracting cavities. The secret of success in the treatment of the general and local pains, is the ability to ring the changes on various articles; the wrought-up nervous system, conjures up, or intensifies pains, which require an agile mind to relieve.

*Gastro-intestinal symptoms.*—For the dry, parched, or fevered lips, use cold cream, camphorated or benzoated oxide of zinc; camphor water and glycerine, with or without borax, or boracic acid; or even glycerine alone may be used. An erythematous stomatitis is often present; demulcents are required. Decoctions of marsh-mallow, or gum arabic, are soothing; morphia, or the syrup of poppies in a demulcent, relieves the burning distress. The slippery elm bark of boyhood days, chewed, furnishes a sooth-



ing coating to the mucous membrane. The burning that attends erythemata may be relieved by allowing bits of borax to dissolve in the mouth, or by applying boracic acid locally. Ten grains of the latter to a half ounce each of water and camphor water are sufficient. Alkaline waters iced are grateful.

For ulcerative stomatitis and thrush, phenol sodique, Dobell's solution, and Listerine, either of them well diluted, are detergent, and often soothing. If the ulcers are few, iodoform in ether touched on them will quickly heal. Boracic acid and camphor water in distilled water is a cooling mouth wash; myrrh is commonly used by the laity. Alcohol in water can be used; a solution of the bichloride of mercury (1:1000) in iced water seems to be cleansing. Flatulency is a most distressing cause of suffering. External applications of heat, dry or moist, are required. The aromatic spirits of ammonia, spirits of chloroform, Hoffman's anodyne, brandy and lime water, creasote and charcoal in pill, with or without pepsin, or a mixture of carbolic acid, tincture of cardamon, bicarbonate of soda, with mint water, most frequently relieve it. The recent preparations of pepsin, and pancreatin, are of inestimable value. A bitter before eating, with or without an alkali, prevents a succeeding flatulency; either nux vomica, gentian, or quassia.

Vomiting arises from laryngeal irritation, from cough, from exhaustion, from local gastric irritation, by food undigested undergoing fermentation. Remove the laryngeal irritation by the local application of astringents and anodynes, by glycerite of tannin with or without morphia, or by astringent and anodyne lozenges. The vomiting of food by cough is prevented by administering morphia half an hour before meals, or by taking deodorized tincture of opium before the meal. The vomiting that occurs after rising is often prevented by taking some stimulant with nourishment, before assuming the erect posture; sherry and egg, or milk and brandy. The vomiting and retching that occur from excessive coughing is to be relieved by the anodyne that checks the cough; the more simple the anodyne the better; minute doses of morphia, if not contraindicated, are the best. The vomiting of exhaustion is controlled by stomachics, as quassia, or gentian in infusion; by stimulants, as champagne, brandy, and aromatic spirits of ammonia. Vomiting due to local irritation and congestion, caused by undigested and fermented food, is relieved by antifermentatives; car-

bolic acid, creasote, bismuth and charcoal; by artificial aids to digestion, by the use of peptonized or pancreatized foods; by alkalies, as iced lime-water, or Vichy water, which act as local sedatives; by carbonic acid water, the effects of which are sedative. The stimulating effect of a sinapism, or the sedative effect of a blister, must be invoked by their respective indications. It must not be forgotten that lying on the right side increases the tendency to vomit, lying on the other side having an opposite effect.

Pain in the epigastrium, a most common symptom from flatulency, from an irritated congested stomach, from a diaphragmatic pleurisy, is to be met by treating the respective causes. A gastric sedative, as subnitrate of silver in pill before meals, with a minute dose of opium, prevents the pain that ensues after food.

Diarrhea, if colliquative, may be controlled by stimulants, as burnt brandy, ammonia, or camphor; if tubercular, by large doses of astringents. Bismuth, from thirty to sixty grains in each administration, has served the writer as well as any combination of drugs. Logwood is a most valuable astringent, the fluid extract being used most frequently.

Intestinal flatulency is often the cause of diarrhea, and can be prevented by salicylic acid, by antifermentatives, and by pancreatin. The diarrhea that follows immediately on taking food is treated by an opiate; preferably, deodorized tincture of opium in small doses, five to ten drops, or the powder one-twelfth of a grain, with silver or bismuth, before meals. A septic diarrhea ensues also in the last stage, and is to be checked by salicylic acid, by naphthol, or other forms of the naphthaline series recently introduced into therapeutics. The diarrhea of amyloid diseases can only be controlled by opiates.

To relieve the cough of the last stage is most difficult. Dryness of the upper air-passages is most distressing, and local applications are generally painful. By the aid of a mirror, suitable remedies, always demulcent in character, can be applied to the congested areas about the larynx and epiglottis. Glycerine applied with a brush relieves the dryness; Dobell's solution thus applied is of service. The applications must be made often to the dry areas. Listerine with glycerine is of much value, Inhalations of terebinthinated vapors, or of simple aqueous vapors, are most grateful. The simplest form of inhalation is the best. We frequently have generated the vapor in a sick cup, covering the top and inhaling

by the mouth-piece. The ineffectual efforts to cough can be aided by hot water, by hot water and brandy, and by the aromatic spirits of ammonia well diluted. Hydrocyanic acid has never been of any service in my hands for cough, while opiates are to be used with caution. A moderate dose of morphia may produce serious, even fatal symptoms. Codeia has disappointed the writer. Hyoscyamus and belladonna frequently add to the distress by producing dryness of the fauces; to relieve the dyspnea, our utmost efforts are in demand. Ammonia, alcohol, Hoffman's anodyne, and draughts of hot water are required in turn; external heat contributes to the relief. One of my professional friends says he has seen the air-hunger relieved by quebracho. Inhalations of oxygen should be theoretically of much service; the writer has never used them. The patient must be supplied with fresh, cool air, a source of relief to the distress. Attacks of dyspnea, of course, are increased by flatulency, and this complication must be removed.

Hemorrhage in the last stage is usually profuse. A knowledge of the pathological anatomy of the lung at once shows the futility of astringents. Rest and opiates are essential, stimulants may be required; ice or cold cloths over the chest are imperatively demanded if it persists.

Laryngeal and faucial tuberculosis increases the distress of the patient. As long as feasible, cocaine to render the taking of food possible must be applied to the ulcerated pharynx and larynx. Insufflations of morphia alone, or with iodoform and starch, must be practised, and over the larynx frequent fly blisters applied. One-eighth to one-quarter of a grain of morphia, with one grain of iodoform and three of starch, insufflated, or added to treacle and retained by the patient as long as possible in the larynx, gives much relief.

In the late stage of phthisis some means must be used, but not as imperatively as in the earliest stages, to combat fever. Quinine frequently aggravates nervousness, and is inadvisable. The salicylate of sodium, doses of five grains, guarded with a dram of whiskey, every three hours, is a reliable antipyretic. It is also of much service after the manner of administration by Jaccoud. The general restlessness and nervousness which ensue at this period of phthisis must be prevented or allayed by quiet in the surroundings, by free access of pure air, by the administration of light liquid



food only, and by the use of stimulating anodynes, preferably Hoffmann's anodyne; for a similar purpose, valerian and asafetida, by the mouth or rectum, or, if practicable, musk can be used; they are of much value. Gentle frictions allay restlessness, while ministrations with soft voice and gentle action allay an easily perturbed, nervous system. By means akin to these, we can truly administer to the sufferings of our patients. It is quite certain, however, that the firm voice, the truthful countenance, the inspiring touch, sustain and soothe in this trying passage through the valley of the shadow of death.—*Medical News*. Oct. 15, 1887.

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LACK OF MILK IN IRELAND.—T. Laffan in some remarks at a session of the Section of Public Medicine, at the Dublin meeting of the British Medical Association, called attention to a pitiable lack of milk supply for the children of the Irish rural working class. He says with reference to this milk supply, "I question if city people have the slightest notion how stinted it is. It is no uncommon thing for these children to be for whole months without a drop of milk, and even in the very midst of summer I have visited houses to find them sitting down to a dry dinner without so much as a single drop of that indispensable aliment. \* \* \* The children of the poor have now nothing but sloppy tea, salt, or melted lard, with their meals for a great part of the year, and too often for the whole of the year."—*Brit. Med. Jour.* Aug. 12, 1887.

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LITERARY NOTES.—The following works will be issued during December by the New York Publishers, Leonard & Co., 141 Broadway. Diseases of Women, a work based upon the practical experience and teachings of the following eminent gynecologists: Drs. Thomas, Mundé, Hunter, Lusk, McLane, Skene, Garrigues, Barker, Emmet, etc., 436 pages, cloth, \$1.50. Diseases of Infancy and Childhood, with over 400 formulæ and prescriptions, by Drs. Jacobi, Hammond, Flint, Loomis, Janeway, Bulkley, Agnew, etc., 300 pages, cloth, \$1.25. Diseases of Heart and Lungs, with over 350 formulæ and prescriptions, by Drs. Draper, Delafield, Leaming, J. Lewis Smith, Loomis, Clark, Janeway, etc., 204 pages, cloth, \$1.25.

## NOTES AND ITEMS.

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MR. RICHARD QUAIN, the well-known anatomist has died recently.

INSANITY AMONG NEGROES.—Among the negroes in the United States there is one insane person to every 1,097 of the population.

PROFESSOR UNNA, is said to have received a fee of \$6,000 in consultation upon the case of a wealthy lady in New York during his visit to this country.

DRUGS AND MEDICINES OF NORTH AMERICA.—The June number contains the conclusion of the account of *Erechitis Hieracifolia* and that on *Caulophyllum*, (Blue Cohosh.)

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES.—The publishers announce that with the commencement of the coming year this journal will appear monthly instead of quarterly as heretofore.

THE RUSSIAN ARMY is said (*Pravitelstvennyi Vestnik*) to have 2,808 surgeons, 232 veterinary surgeons, and 3,455 medical assistants. The strength of the Russian army on a peace footing being about 800,000, the allowance is about one surgeon to every 300 men.

THE INTERNATIONAL MEDICAL AND SURGICAL SYNOPSIS is the name of a new monthly Medical Journal, which is published in St. Louis, the first issue being the September number. It is apparently published in the interest of one of the Medical Colleges of the city.

SUPPRESSION OF MENSES IN COLD COUNTRIES.—At a meeting of the Société d'Anthropologie, of Paris, in a discussion concerning Greenland, it was stated that during the most rigorous seasons the catamenial flow was suspended. It was stated that in the upper regions of the Alps, physicians have observed a suspension of the

function of menstruation during the six cold months, without any evil consequences.—*N. Y. Med. Jour.*, Aug. 27.

BERNHARD VON LANGENBECK, died of cerebral apoplexy at Wiesbaden, Sept. 30, 1887, at the age of seventy-seven. He was an eminent professor and a skilful and bold operator. His best known writings are those upon exsection for gunshot wounds of the joints, and his remarkable results in the department of operative surgery are also well known and have had a marked influence upon the practice of other surgeons.

MEDICAL NEWS VISITING LIST FOR 1888.—This is the handsomest visiting list that has come under our notice. It is arranged conveniently for all the usual accounts that are kept by the physician and has very well selected notes and memoranda that will often be of service at the bedside.

We can heartily commend this list to any of our readers who are about to supply themselves for the coming year.

One new feature for this year is a monthly edition for those who prefer that arrangement to the weekly edition.

THE GLEDITSCHINE INVESTIGATION.—The statement in the last paragraph of our editorial on Gleditschine, proves to be incorrect so far as this, that the editors of the *Medical Record* and of the *New York Medical Journal* did not consent to act as a committee of experts to investigate the matter under the limitations proposed by Dr. Seward and Mr. Goodman, viz, that the chemical process by which the solution is obtained shall be kept a secret and only a statement published as to the question whether or not cocaine and atropine, one or both, are used in the preparation.

The *Medical Record*, Nov. 19, say, with reference to an investigation proposed: "We have deemed it best for all parties concerned in this inquiry that the leaves of the 'tear-blanket' tree shall be expressed to us directly by an impartial party, and shall be examined by Dr. Charles Rice, of this city, who will report the result in due time.

Drs. Goodman and Seward will be invited to give such information to the analyst as may aid him in his investigation, but any chemical processes which may be either novel or necessary to produce the product shall be fully published, as is proper with any other scientific intelligence.



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AMEISS, F. C., - St. Louis.	HUGHES, C. H., - St. Louis.
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